Life-cycle leap: EMC to announce what its acquisition of Documentum has yielded
Rational idea: IBM will provide deeper integration in the next version of its tools suite.

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JAMES O'BRIEN

EDUCATING YOUR CXOs

Business execs have learned just enough about IT to be dangerous, so smart CIOs are furthering their education to turn them from adversaries to allies. Here's how.

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NEWSPAPER

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Future of HP User Events Uncertain

Independent user groups say vendor's proposal to consolidate conferences threatens revenue, voice

BY MATT HAMBLEN AND PATRICK THIBODEAU

In a development that threatens the continued existence of independent HP user groups, Hewlett-Packard Co. intends to "coalesce" three user conferences into one "technical solutions conference" beginning next year.

Some user group officials said the plan, which may mark the end of HP World, threatens the groups' major sources of revenue and their reasons to exist. And they're worried that the plan would replace user-focused conferences with a vendor-sponsored, marketing-driven event.

The 10,000-member Encompass user group has endorsed the plan. But ITUG (formerly the Tandem user group), OpenView Forum International and the 100,000-member Interex group are voicing concerns.

"If you surrender your premier event, what is your purpose in life beyond that?" asked Denys Beauchemin, president of Sunnyvale, Calif.-based Interex, which co-produces HP World annually with Encompass. Interex leaders and members are assessing the impact of HP's proposal on Interex's "very existence . . . if we did not have HP World," Beauchemin said.

"There is something of value lost when a conference is run by a vendor," added Chris Koppe, an Interex board member and marketing director at Speedware Corp. in St. Laurent, Quebec. "It is the vendor's interest that is put foremost, and there is a negative impact."

HP Events, page 14

INSIDE PAGE 14

Supply Chain System Failures Hampered Army Units in Iraq

BY MARC L. SONGINI

Because of the failure of automated supply chain management and tracking systems in Iraq, U.S. Army combat units fighting there last year had to resort to capturing key supplies such as lubricants and explosives from enemy stockpiles, according to a review of the war that was written by military analysts.

In addition, food supplies barely met demand, and stocks of ammunition and spare parts were nearly depleted during combat, wrote analysts at the Center for Army Lessons Learned, a mil-

Army in Iraq, page 15

MORE ONLINE

Effort Afoot to Address E-voting At Convention

INSIDE PAGE 45

BY DAN VERTON

A Democratic congresswoman from President George W. Bush's home state plans to put the issue of electronic voting security and integrity in the spotlight at this week's Democratic National Convention.

Although she isn't scheduled to speak at the convention in Boston, Texas Rep. Eddie Bernice Johnson will call on prominent Democrats to help raise voter awareness about the challenges facing the security, reliability and integrity of electronic voting systems, a spokesman for her office said.

"I can't imagine it not be-

E-voting, page 45

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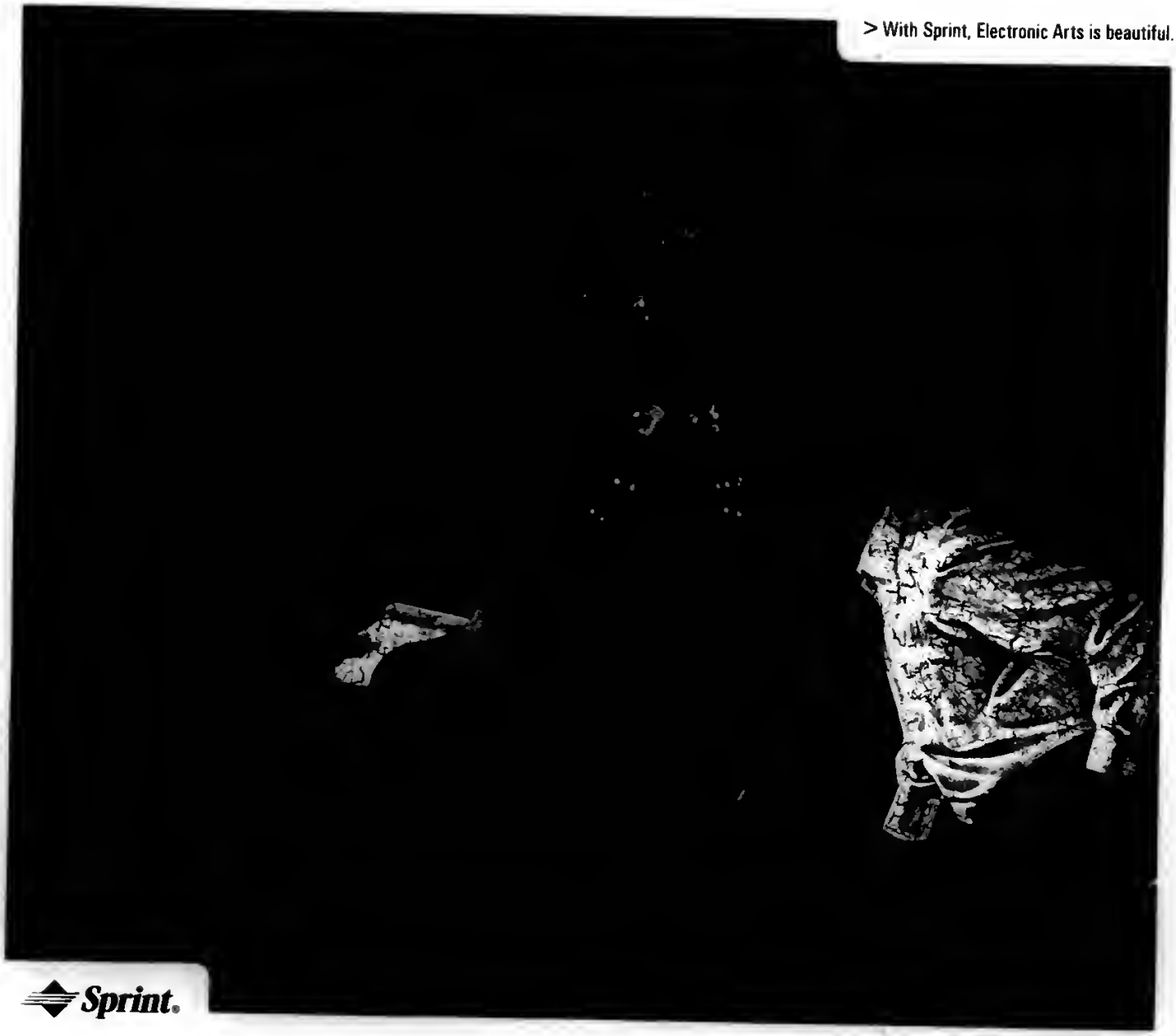

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Electronic Arts makes beautiful video games. Since this entertainment powerhouse switched its data transport from ATM to IP with Sprint, coupled with Electronic Arts' technology, network performance has improved dramatically. Gigabytes of game code and digital assets that took 8–10 hours to send now take less than 20 minutes. Thanks to shortened data transport times and the ability to host digital assets in one place, the process of developing games is now both quick and highly collaborative, with information sharing amongst more than 40 countries. And since switching to Sprint, Electronic Arts saves roughly $100,000 a month. With Sprint, Electronic Arts is reliable, faster and more effective – in a word, beautiful. **With Sprint, business is beautiful.**™

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07.26.04

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Stretch Your Talent

In the Management section: Stretch assignments can boost employees' IT skills, career prospects and morale. But be careful: Stretch your workers, don't break them. **Page 33**

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7 **SAP broadens** a software maintenance program that was announced in March to cover all new releases of its business applications.

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12 **IRS systems** face security risks because of insufficient oversight of contractors and unauthorized use of handheld devices, auditors say.

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ONLINE

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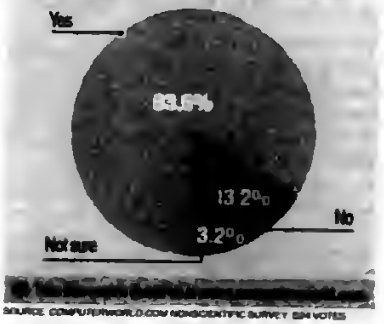
QuickPoll Results

Should e-voting machines be required to generate a paper record of votes cast?



SOURCE: COMPUTERWORLD.COM NONSCIENTIFIC SURVEY, 534 VOTES

Load Testing Done Right

WEB SITE MANAGEMENT: Poor testing procedures may be to blame for some highly publicized Web site crashes. Keynote Systems' John Klinke explains how to test the right way. QuickLink 48198

Don't Be Left in the Dark

DISASTER RECOVERY: As the first anniversary of the "Great Blackout of 2003" approaches, Randy MacCleary, general manager of UPS Business at Liebert North America, offers steps your company can take to keep business running during a power outage. QuickLink 47544

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The Online Store
QuickLink a2420

AT DEADLINE

i2, Manugistics Changing CEOs

Supply chain software vendors i2 Technologies Inc. and Manugistics Group Inc. are both changing their top executives. Dallas-based i2 said founder Sanjiv Sidhu will step down as CEO once a replacement is hired, although he will stay on as chairman. Manugistics named Joe Cowan to take over as CEO from Gregory Owens, who also will continue as chairman. Cowan previously was CEO at EXE Technologies Inc. in Dallas.

Sun Puts Opteron In Four-CPU Server

Sun Microsystems Inc. today plans to announce an Opteron-based server that runs Solaris and supports up to four CPUs, according to information posted on a Web site for its business partners. Sun declined to comment about the announcement, which follows Hewlett-Packard Co.'s rollout of a four-processor Opteron system in April.

Microsoft Sales, Profits Up Again

Microsoft Corp. said revenue increased 15% year over year in its fourth quarter, which ended June 30. Profits rose 81%, and Chief Financial Officer John Connors said all of Microsoft's product groups met or beat expectations.

Q2 2004	59 29B	$2.69B
Q2 2003	58 07B	$1.48B

CA Cuts Forecast For Its Fiscal Year

Computer Associates International Inc. reported first-quarter financial results that were better than the company had warned they would be earlier this month. But CA lowered the sales forecast for the rest of its fiscal year, saying it expects total revenue of $3.4 billion to $3.5 billion. It had once projected up to $3.7 billion in revenue for the full year.

EMC Links Document Management, Storage

Adds software for moving data to different devices

BY LUCAS MEARIAN

EMC CORP.'S Documentum division today will announce its first product offering that ties together document and storage management through the use of software designed to automatically migrate unstructured content to different tiers of storage devices.

EMC officials last week said the new Document Content Storage Services software runs in conjunction with Documentum's content management applications and includes a policy engine that IT managers can use to direct corporate documents to primary, secondary or archival storage. The policy engine can take into account factors such as the age of documents and the value they have to a company.

The software can also move data throughout multivendor storage installations, according to EMC. The company said Document Content Storage Services works with its own storage subsystems and with hardware sold by rivals IBM, Hewlett-Packard Co., Hitachi Data Systems Corp. and Network Appliance Inc.

Changing Classifications

Document Content Storage Services provides a framework for classifying documents from a storage standpoint at the time they're created and then modifying the classifications throughout the life cycles of the documents.

For example, an insurance contract or product invoice would be stored on a high-speed disk array while being processed, said Neville Letzerich, a product marketing director at EMC. But after being finalized, the document could be migrated to lower-cost disk storage and eventually to a tape archive, be added.

Wayne Aiello, vice president of e-business services at EMC user Corporate Express Inc. in Broomfield, Colo., said the office products distributor will likely roll out Document Content Storage Services next year. Aiello said he hopes the software will help Corporate Express save money by allowing him to migrate some of the company's 25 million product order invoice documeots to lower-eod storage, freeing up more primary storage for transactional data.

"Depending on the age of the document, it's very important for us to understand how to store it," Aiello said. "Obviously, we doo't want to store all 25 million invoices oo high-end storage. It's not cost-effective for us."

Last year, Corporate Express took in about $1.5 billion of its $4.4 billion in North American sales through its Web site. The company is just beginning to use Documentum's content managemeot tools to archive Web content, according to Aiello.

He also expects Documentum's software to help Corporate Express as well as its corporate customers comply with the financial reporting mandates of the Sarbanes-Oxley Act. "Customers are asking us because of [Sarbanes-Oxley] to maintain their order history — who ordered it, who approved it, wheo it was approved — and to keep the ootes put on it," he said. "It's a financial record for them."

Defining the storage policies that are needed to automate document life-cycle management will be an arduous task, Aiello acknowledged. But be said be's looking forward to setting up those policies in Documentum's software instead of having to build "a lot of scripts on the hardware side."

IDC analyst Bill North said developing automated storage migratioo policies for existing documeots will be a nearly impossible task for users, unless they already run Documentum's content management tools. "This is great for companies using Documentum, but it doesn't do anything for the larger population out there," North said.

EMC said Document Content Storage Services is available now, but it couldn't provide pricing information on the new product last week. Documentum's flagship Document Cootent Server software starts at about $50,000.

48338

TECHNOLOGY DETAILS

Document Content Storage Services

INCLUDES a policy engine that triggers ad hoc or batch execution of storage allocation policies as files are added to systems

OFFERS tools for creating and altering storage policies, plus audit capabilities and event logs for reporting and chargeback uses

PROVIDES APIs for linking the policy engine to storage devices from EMC, HP, IBM, Hitachi Data Systems and Network Appliance

EMC Has Strong Q2 – but Not Symmetrix and Documentum

EMC last week reported double-digit revenue growth for the second quarter year over year, meeting Wall Street's expectations. But sales of the company's high-end Symmetrix storage arrays declined from their first-quarter levels, as did sales of Documentum's software.

EMC brought in $1.97 billion in revenue during the quarter that ended June 30, up 33% from the same period a year ago. However, the results reported for last year's quarter weren't restated to reflect EMC's acquisitions of Documentum, Legato Systems Inc. and VMware Inc. The company said revenue from its core business, excluding those three units, was up 19%. Net income totaled $193 million.

Sales of EMC's midrange Clarion disk arrays jumped 43% from the year-earlier level, and the company said its Celerra network-attached storage business increased 40%. But Symmetrix sales were up just 5% year over year and declined 3% on a sequential basis.

Tom Lahive, an analyst at Enterprise Storage Group Inc. in Milford, Mass., said Clarion, Celerra and EMC's Centera fixed-data disk array all had "huge growth" during the second quarter. "The question for the company is, what are they going to do to keep their meat-and-potatoes Symmetrix line growing?" Lahive said.

EMC spokesman Michael Gallant said the company underordered some of disk drives used in the Symmetrix line. "So, essentially, there were some Symmetrix orders we put into backlog," Gallant said. He also noted that for the first half of 2004, Symmetrix sales were up 11% year over year.

Documentum sales declined 9% sequentially during the second quarter, while EMC reported increases for Legato, VMware and its own software products. Documentum "did poorly; all else did very well," said Nitsan Hargil, an analyst at Friedman, Billings, Ramsey Group Inc. in Arlington, Va.

–Lucas Mearian

HHS Sets Plan for Adoption Of Electronic Medical Records

Claims technology will save money, but upfront IT costs likely will be steep

BY BOB BREWIN

The U.S. Department of Health and Human Services last week unveiled a 10-year plan to create a new health information infrastructure that will include electronic health records for all Americans and a nationwide network that doctors could use to access those patient EHRs.

At a health care IT summit held by the agency in Washington, HHS Secretary Tommy Thompson estimated that the adoption of EHR systems nationwide could lower the country's annual $1.7 trillion health care bill by 10%. He also said the use of EHRs would better protect health care records and help reduce medical errors.

Dr. Brent James, vice president of research at Intermountain Health Care Inc. in Salt Lake City, said he thinks the savings from streamlining the U.S. health care system with EHR technology could eventually amount to $400 billion per year. Intermountain maintains EHRs for about 1 million patients at its facilities.

But generating those savings won't happen without a hefty upfront price tag, according to Mike Kappel, senior vice president of strategic planning at McKesson Corp., a San Francisco-based pharmaceuticals distributor and health care IT vendor. Kappel said that he "would not find it impossible to believe" that the cost of developing a national EHR system could hit $10 billion.

Kappel added that the federal government has budgeted only $50 million this fiscal year and $100 million for the next one for health care IT, meaning much of the cost burden for the envisioned new systems may be pushed out to doctors and hospitals.

David Barnhart, CIO at Wuesthoff Health System in Rockledge, Fla., said HHS needs to find a way to "incentivize" health care providers to embrace EHR technology. For example, it might speed adoption if insurers paid a premium to doctors and hospitals that agreed to take part in the new network, Barnhart suggested.

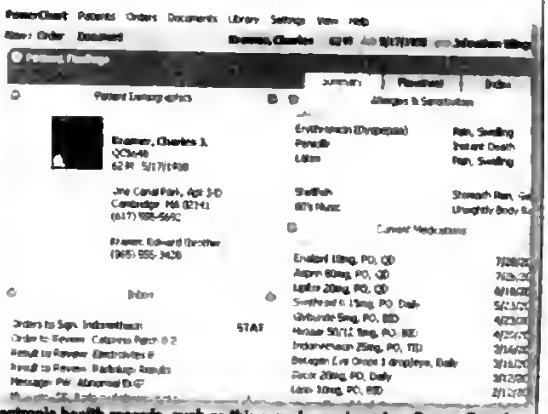
In its "Framework for Strategic Action" plan, HHS recognized the need for such incentives. According to the plan, the Centers for Medicare & Medicaid Services is considering authorizing extra payments to health care providers that use EHRs, as well as other steps designed to stimulate adoption.

The HHS plan also calls for development of standards-based EHR systems, and three industry groups representing health care providers, insurers and IT vendors announced a joint initiative to certify EHRs. Taking part are the American Health Information Management Association, the Healthcare Information and Management Systems Society and the National Alliance for Health Information Technology.

James said vendors need to pay strict attention to standards for the use of EHRs to become widespread. He added that they also need to improve existing interfaces between EHR systems and other applications. Currently, users can spend as much money developing their own system-to-system links as it costs to buy EHR software, James said.

Terry Hsu, CIO at Evergreen Healthcare in Vancouver, Wash., also called for better user interfaces on EHR systems, saying the ones now being offered by vendors "are not quite there yet."

Elizabeth Prewitt, a lobbyist for the American College of Physicians, said a bill introduced last Wednesday by Rep. Patrick Kennedy (D-R.I.) would go a long way toward helping to pay for EHR installations. The bill calls for $5 billion in funding for health care IT from fiscal 2005 through 2008, with roughly half of that allocated to development of information exchanges based on EHR systems. 48367



Electronic health records, such as this sample one based on Cerner Corp.'s PowerChart software, contain basic medical information and can be linked to medical imaging and e-prescription systems.

THE CASE FOR EHRs

Improved data privacy will be one benefit of electronic health records, backers say

QuickLink 48366
www.computerworld.com

SAP Unifies Its Software Maintenance Programs

BY MARC L. SONGINI

SAP AG last week said it's extending an eight-year software maintenance program introduced for its ERP suite in March to all of its business applications. The move is aimed at replacing a mix of support offerings for different products.

SAP announced that its so-called 5-1-2 maintenance plan will now be offered across the board on new releases of applications built on top of the company's NetWeaver middleware technology. The new maintenance scheme initially was available only for its flagship mySAP ERP software.

The plan provides for five years of mainstream maintenance after applications are released. That will be followed by an initial year of extended maintenance at a higher price and two more years at an additional markup (see box). Thereafter, users will have to negotiate maintenance contracts, SAP said.

Uwe Hommel, senior vice president of SAP's Active Global Support division, said the company is trying to enable its customers to "plan in a very safe way how to deploy the software," he said.

Driven by User Demand

Hommel added that the expansion of the maintenance plan was driven by demand from users who wanted more definitive information about support so they could do migration planning.

The 5-1-2 offering could potentially be of use for planning future upgrades, said Gerrard Rutter, vice president of information services at software vendor Adobe Systems Inc. in San Jose. However, it won't be relevant for Adobe anytime soon because the company always installs new versions of SAP's software, he added.

"Our approach is to stay current at all times," Rutter said. Adobe runs the R/3 Enterprise release of SAP's ERP applications plus its CRM and data warehousing software.

HOW IT WORKS

New application releases will be supported for five years at SAP's regular support price, which is 17% of the cost of a software license.

Users can buy one year of extended maintenance for an additional 2%.

Maintenance can be extended for another two years at a 4% markup.

The decision to offer a consistent software maintenance plan follows SAP's announcement earlier this year that it would synchronize upgrades of the NetWeaver products, which include an integration broker as well as SAP Business Intelligence and its portal software [QuickLink 45409].

Gartner Inc. analyst Brian Zrimsek said SAP is reflecting a trend among ERP vendors to treat users more as owners of software, not just as product buyers. For example, PeopleSoft Inc. last year launched an initiative dubbed Total Ownership Experience that's aimed at simplifying the installation and maintenance of its applications, he noted.

SAP's plan lets users decide whether they want to pay for the extended maintenance or migrate to newer releases, Zrimsek said. "I think it's a must — clarification, communication and formalization for the longer term," he added. 48326

BRIEFS

EDS to Integrate Banks' Networks

Electronic Data Systems Corp. said it has signed a new IT services contract with Bank of America Corp. calling for EDS to integrate the bank's voice and data network with the communications infrastructure of FleetBoston Financial Corp., which Bank of America bought in April. The new deal extends a 10-year, $4.5 billion agreement signed early last year. It's now valued at $1.1 billion over eight and a half years.

Hyperion Shuffles Its Top Two Execs

Hyperion Solutions Corp. gave Chairman and CEO Jeffrey Rodek the title of executive chairman and named Godfrey Sullivan, who previously served as chief operating officer, to replace Rodek as CEO. Sunnyvale, Calif.-based Hyperion also said it has agreed to buy QIQ Solutions Pty., a developer of end-user dashboard software in Sydney, Australia. [To read an interview with Rodek, go to our Web site: QuickLink 48311].

Nortel Sues User Over Switch Deal

Nortel Networks Ltd. said it has filed a copyright infringement lawsuit against online marketplace Arbinet-thexchange Inc., an exchange in New Brunswick, N.J., that uses Nortel's switches. The suit, filed in U.S. District Court in Virginia, claims that Arbinet is using Nortel software without authorization and that it failed to buy all the switches it contracted for. Arbinet declined to comment.

Short Takes

IBM won a seven-year deal to manage and develop systems for the U.K. government's Department for Environment, Food and Rural Affairs. . . . Boston-based KEANE INC. said it has acquired Fast Track Holdings Ltd., a British firm that manages large SAP projects.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL

MATTHEW FAULKNER

Save Big Bucks By Switching . . .

. . . e-mail systems, even if you end up running two messaging applications. That's the conclusion of an analyst who has compared the costs of using IBM's Notes and Microsoft Corp.'s Exchange with that of using the system from upstart Mirapoint Inc. in Sunnyvale, Calif. Tomorrow, Mirapoint will start shipping its Enterprise Suite to compete against the big boys.

Sara Radicati, CEO of The Radicati Group Inc. in Palo Alto, Calif., claims that companies can save more than $300 per user per year by adopting Mirapoint's messaging technology. "It's simpler for administrators to use because it's an appliance," she explains. "It's tuned to work on the hardware, and it comes preconfigured." And end users don't even have to learn to use a new mail client. They can still use Outlook and synchronize it as well as their handheld devices with Mirapoint's calendaring program. Radicati adds that even if you have custom applications for a subset of your users, you can leave them on Notes and move everyone else to Mirapoint's appliance and still realize cost benefits. Part of the savings comes from the company's inclusion of integrated security tools, such as spam filtering and virus protection. But most of it comes from Mirapoint's aggressive pricing model. According to Jeff Brainard, senior product marketing manager at Mirapoint, companies with 5,000 users or more pay just $100 per user per year, which includes the cost of the hardware. Can you say, "price war"?

Avoid EMC Storage Expenses . . .

. . . with Profiler for Celerra, which ships this week from Tek-Tools Inc. in Dallas. The $3,000 storage management application gives you detailed trending data on file types for EMC Corp.'s Celerra Data Movers and who's using them how and when. Those babies start at $15,000 a pop and are the heart of EMC's network-attached storage system. Getting a better handle on how to forecast the purchase of your next Data Mover is a big step toward "cost avoidance," claims Tek-Tools CEO Ken Barth. You guessed it. It's buy now and, maybe, save now, too.

Enemy Awaits in Wireless World . . .

. . . worries Richard Wong. He's the general manager of Openwave Systems Inc.'s messaging and anti-abuse division, and he's seriously concerned about Cabir, a virus that spread last month via Bluetooth. It's proof of concept that other wireless protocols, such as 802.11g, can propagate vicious software. "Four or five months ago, I would not have thought it possible," Wong says. He would have argued that operating system fragmentation on wireless devices "was a natural defense," unlike Microsoft's Windows virus magnet. Cabir changed his thinking. He's concerned that a single virus might carry a payload that could infect one or more of the major wireless operating systems, such as Symbian or Palm OS, and create havoc. However, better defenses may emerge, Wong suggests, when the Message Anti-Abuse Working Group wraps up a code-of-conduct and path-of-escalation document that will be submitted for adoption by Internet service providers and vendors that handle the messaging needs of more than 100 million wireless and wired users. For example, with that agreement, Internet service providers will have processes for things such as shutting up spammers and shutting down zombie machines during denial-of-service attacks. They'll also have better ways to react to new viruses such as Cabir. Wong predicts that will happen on Aug. 30. He ought to know. He chairs the group.

'Ethical' E-commerce Is Key . . .

. . . to attracting search-engine hits. That's the advice of Garry Grant, CEO of Search Engine Optimization Inc. in Carlsbad, Calif. He boasts that his company tunes your Web pages "with every ethical [means to] do what a search engine wants, which is to deliver highly relevant results." He says search engines from Google, Yahoo, MSN and others are constantly refining their algorithms to locate respectable pages and ignore sites created by spammers, pornographers and other lowlifes, who are constantly trying to trick the engines into ranking them high. But those algorithm changes also affect honest commercial sites. More than one e-commerce site has found itself out in the cold after an update of Google's engine. One way to stay on the good side of a search engine, he advises, is to carefully and constantly review its usage guidelines. Grant says he regularly searches patent applications for his clients because that's where search companies file their new techniques to either avoid spam or improve Web searches, which he can then use to improve his clients' success rate. "An ethically architected site can succeed," he says. Let's hope so. **48345**

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Save over 30% with our blade bundle featuring two HP ProLiant BL20p Blade Servers, powered by Intel® Xeon™ processors, and get the power to make network management simple and affordable. You'll save on deployment time too, thanks to this ready-to-go package. Sure, modular design leaves room to expand later, but HP Blade Servers can also make a big impact on your total cost of ownership in the meantime. Our management software boosts productivity and cuts reconfiguration efforts from days to minutes. And because your time is money, the BL20p features fully redundant technologies to reduce costly downtime. While our #1 ranking in Intel®-based, server-customer satisfaction is one reason we recently became the first to sell over 100,000 blade servers, there's more than one reason. You also get the advice and support of HP and our local partners—well before and long after you buy. Even when you buy at more than 30% off

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IBM Pledges Better Tools Integration

Upcoming offerings will let users drag and drop information between tools

BY CAROL SLIWA
GRAPEVINE, TEXAS

BLUE CROSS and Blue Shield of Florida uses IBM's Rational Rose tool for building visual models and RequisitePro for managing application requirements. But the company must manually build links when it wants to share information between the two.

That's due to change by the end of the year, when IBM pledges to provide deeper integration between all of its tools through the 3.0 version of the open-source Eclipse framework that it turned over to an independent management body. With the new edition, users won't have to launch each tool separately. They will be able to park themselves in a single user interface while they work with IBM Rational's tools, and they can customize the setup to see only what they need.

Not only will the workspace look better, but users will also be able to drag information from one tool and drop it into another without having to write scripts and export and import files.

"Right now, they're not as tightly integrated, so you have to jump between tools," said Brian Harrington, an IT project manager at Blue Cross and Blue Shield in Jacksonville, Fla.

Many Bridges to Cross

Carl Zetie, an analyst at Forrester Research Inc., said Rational has done a better job of integration than other tools vendors. But he likened the scenario to the city of Venice. "It looks like one city, but boy do you have to cross a lot of bridges to get around," he said.

IBM boosted its integration efforts after acquiring Rational Software Corp. last year. But the sort of integration it's promising with the next version of the Rational tools, code-named Atlantic, is much richer. That's largely because the tools share a common "metamodel" that will allow them to exchange information, said Eric Naiburg, marketing manager of IBM Rational's desktop products.

"The metamodel doesn't have to understand the code," Naiburg said. "It just has to understand what happens."

For example, a RequisitePro user might store text-based requirements for an application in the tool's repository. The metamodel for the requirement can be dragged onto the Atlantic modeling surface, because the modeling and requirements management tools run in the same framework, which is shared on a common metamodel. A traceability link connects from the visual model back to the RequisitePro database for the requirement information.

A Different Approach

Naiburg said IBM is no longer integrating tools but rather is building on top of the Eclipse framework. That's a subtle but important distinction, he said, because it allows for the use of the more abstract metamodels, eliminating the need for each tool to have to parse the code or information imported from another tool. It also brings a common shell and look and feel to the tools, he said.

"A lot of the same ideas are going into [Microsoft's] Visual Studio 2005 for the same reasons," said Zetie.

Carmen Powers, a Des Moines-based business analyst at Nationwide Insurance Co., said the potential created by the new Atlantic offering is exciting because it links software development to the analysis work the company had already been doing.

Powers said he recognizes that the approach will require some degree of cultural change. But, he added, "we are lost without that personal communication, so this is going to help with that."

Edward Karim, a manager in quality assurance at Starwood Hotels and Resorts Worldwide Inc. in White Plains, N.Y., said he had to call the help desk to be able to produce reports drawing information from Rational's TestManager and Requisite Pro. So the improved integration will be welcome.

But Felicia Hong, a software manager at Novellus Systems Inc., said the San Jose-based semiconductor company already has put a lot of work into customizing the Rational suite of tools it has been using since 2000. "The capabilities are great for new users," she said. "But it's late for us."

Companies that don't use the whole Rational suite may not have as great a need for the new capabilities. David Pennington, a development manager at The Home Depot Inc., said his company likely won't use the full suite because it prefers to select best-of-breed tools and get them to work together. The Atlanta-based retailer has a team development product from Documentum Inc. **48365**

NEW FEATURES

Go online for a list of improvements due by year's end for the IBM Rational tools:

QuickLink 48392
www.computerworld.com

Devlin: Modeling Is Best Practice for SOA

GRAPEVINE, TEXAS

Mike Devlin, general manager of IBM's Rational software division, says modeling is a crucial step for any company building out a service-oriented architecture. Devlin spoke with *Computerworld* about developer trends at last week's IBM Rational Software Development User Conference here.

Q&A

What new customer trends have you seen in the past year? One correlates with the economy. A year ago, the focus was almost exclusively on cost reduction. This year, I'm seeing more customers who are doing this stuff not just to drive out cost. . . . In the technology sense, I think a year ago, service-oriented architecture was sort of a nice, "maybe we'll do a pilot next year" type of thing. This year, we're seeing in the leading companies that it's much more, "We've done it once or twice on some projects; we now know enough to use that to put in place a next-generation enterprise architecture and move the business forward."

How much modeling are you seeing? It varies widely. We see some organizations that do extensive modeling, and they're very committed to it, and they have model-driven development as the core part of their strategy. But we see a lot of people that are not doing that. They haven't recognized the value of that. I wish there was a simple answer, but customers are all over the map.

How critical is modeling to implementing a service-oriented architecture? It is a best practice, both in terms of modeling and business processes and finding common business process components, as well as modeling the actual architecture itself. I worry a little bit that we're where we were with some of the first component technologies. People can go for a little while without it. But then they sort of lose control of the architecture pretty quickly.

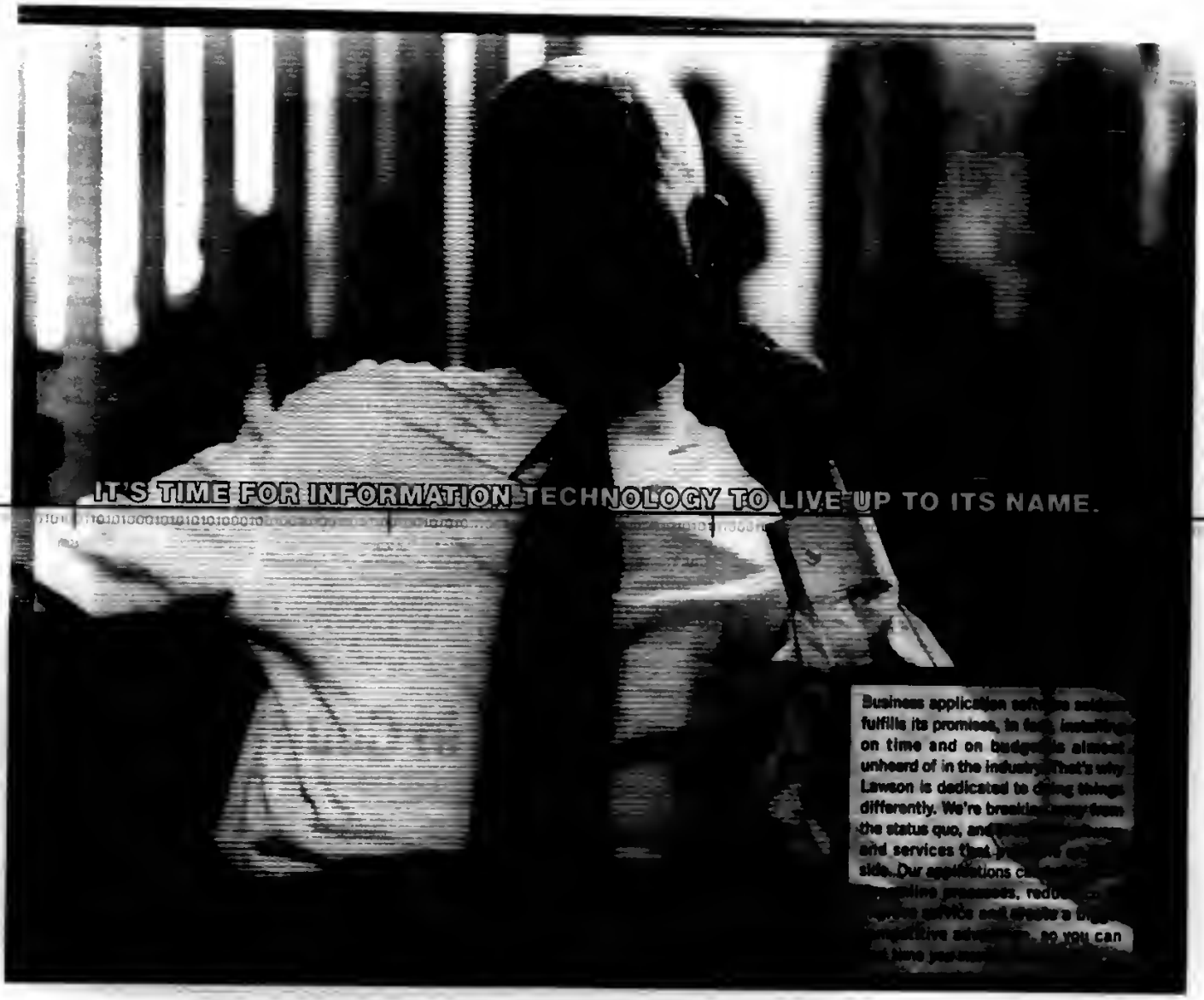
I'm afraid we're going to see that lesson lived over again, unfortunately. They'll find they're duplicating the same thing in two different divisions, because there's just no way to communicate what they're doing.

IBM promotes development on Linux. How much of that are you seeing? On the embedded side, there's a lot of Linux, [and] for the middle components in the telecom space. A lot of the network controllers are leaning toward Linux as the operating system. Most of those applications are still written in C++. I would still say that's three quarters C++ and one quarter Java. In the IT space, we are seeing a lot of server work being done for Linux. I personally don't know of much on the client side. It's not like we did a formal poll to figure this out, but my impression is we're still seeing it primarily on the server side.

Do you remain committed to having tools for Microsoft's .Net development environment? Yes.

Do you think other vendors, such as Microsoft, are reacting to IBM's Rational acquisition when they're pledging modeling and team capabilities for their products? It was reactive to us, yeah. The consolidation of the tools industry requires the leading companies in each space to form a suite, which caused Borland and everybody else to try to do the same thing. But the way I think about it is less what these competitors are doing and more what customers need.

—Carol Sliwa



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Fed Auditors Slam IRS For IT Security Risks

Reports hit lax oversight of contractors, unauthorized use of handheld devices

BY LINDA ROSENCRANCE

AUDITORS from the U.S. Department of the Treasury have issued two reports about IT security risks at the Internal Revenue Service, one saying that contractors working on IRS systems "committed numerous security violations" and the other taking the agency to task over unauthorized use of handheld devices.

The security violations by IT contractors "significantly increased" the potential for the spread of viruses and unauthorized disclosures of taxpayer information, according to auditors in the office of the Treasury Inspector General for Tax Administration. The auditors said contracting officers and IT managers at the IRS didn't do enough to ensure that the contractors adhered to the agency's security procedures.

For example, the auditors found that contractors from one firm were given obsolete PCs that couldn't support the IRS's security settings. The contractors were also able to add unauthorized software to the computers, according to the report, which was issued internally on March 22 but has yet to be publicly released.

Computerworld obtained a copy of the report last week from the Washington-based National Treasury Employees' Union, which was given an edited version after filing a Freedom of Information Act request. Before releasing the report to the group, which opposes the shift of federal jobs to private contractors, Treasury officials removed the names of contractors and other sensitive data.

The auditors, who conducted their review from March to September of last year, recommended that the IRS limit the computer access privileges of contractors to only what they need to do their jobs. In addition, they said IRS officials should monitor the activities of contractors via system audits and ensure that contracting officers and security administrators carry out their oversight responsibilities.

IRS officials didn't return phone calls seeking comment by *Computerworld*'s publication deadline. In a written response that was included in the report, the IRS disagreed with the findings and said it hadn't received enough evidence to support the auditors' conclusion that contractors put its systems at risk.

But IRS officials said they agreed with the report's recommendations and promised that they would take "corrective actions" to limit contractors' system access privileges and track their activities.

> "A contractor's employees committed numerous security violations that placed IRS equipment and taxpayer data at risk. In some cases, contractors blatantly circumvented IRS policies and procedures even when security personnel identified inappropriate practices."

The report about the use of handheld devices was posted on the Treasury Department's Web site July 16. In that report, the auditors said the IRS has bought about 425 handhelds that support data encryption and are certified as secure. But they added that more than 2,000 uncertified handhelds purchased by business units without the IT department's approval pose "significant" security risks, including unencrypted data and the creation of network back doors that could be used to bypass security controls.

In response, IRS officials said they will take action to ensure that handhelds connected to the agency's network comply with security controls. They added that they also will install security software with password and encryption capabilities and establish a process for removing or replacing all uncertified devices. 48391

Correction

A story about network-attached storage that ran in the July 12 issue's Technology section ("Simplifying NAS Management") transposed the file system protocols used by Windows-based file servers and by machines running Unix or Linux. Windows uses the Common Internet File System, while Unix and Linux use the Network File System. A corrected version of the story is on our Web site: QuickLink 47734.

SCO Loses a Round in Court

Judge dismisses most of vendor's claims against DaimlerChrysler in Linux case

BY LIBBA ROSENCRANCE AND TODD R. WEISS

A Michigan judge last week threw out most of the claims made by The SCO Group Inc. in a Linux-related lawsuit that it filed against DaimlerChrysler AG in March.

A spokesman for the Circuit Court for the County of Oakland, Mich., said Judge Rae Lee Chabot granted DaimlerChrysler's motion for a summary judgment dismissing the suit, except for a charge that the automaker didn't respond quickly enough to a request from SCO for certification that it was complying with a Unix license agreement.

DaimlerChrysler argued in court that it filed the necessary certification in April even though company officials didn't think it was required to do so, since it hadn't used the software covered by the Unix license with SCO for more than seven years. "We're pleased with the judge's ruling, and we look forward to finally resolving the one open issue," said DaimlerChrysler spokeswoman Mary Gauthier.

SCO spokesman Blake Stowell said the Lindon, Utah-based vendor is reviewing its legal options based on the judge's decision. He added that the lawsuit could have been avoided if DaimlerChrysler had responded to SCO's request for a compliance certification within the allotted 30 days. "It's a little unfortunate that it took a lawsuit for them to respond to what was a real simple letter asking them to certify," he said.

> **SCO hasn't provided any evidence out there to convince IT managers that Linux violates its intellectual property rights.**
>
> DION CORNETT, ANALYST, DECATUR JONES EQUITY PARTNERS LLC

DaimlerChrysler is one of two Linux users that SCO has sued as part of its legal campaign against backers of the open-source operating system. The other user is automotive parts retailer AutoZone Inc., which is accused of running versions of Linux that contain Unix code copyrighted by SCO [QuickLink 45249].

Jeffrey Norman, a software lawyer at Kirkland & Ellis LLP in Chicago, said the ruling in the DaimlerChrysler case has essentially squashed SCO's efforts to convince Linux users that they could face legal consequences if they ignore its requests for compliance certifications. "I think that strategy has failed," Norman said.

"The judge just sort of saw through what SCO was doing, particularly its public comments around copyright violations," said Dion Cornett, an analyst at Chicago-based Decatur Jones Equity Partners LLC. "SCO hasn't provided any evidence out there to convince IT managers that Linux violates its intellectual property rights."

DaimlerChrysler didn't respond to SCO's certification request until after the vendor had filed its lawsuit. But in court filings submitted in April, DaimlerChrysler argued that it had "provided SCO with the only certification required under the license" between the two companies.

The filings referred to two letters dated April 6 that were sent to SCO. One of the letters said that DaimlerChrysler was no longer using the software, which originally was licensed under a 1990 agreement between Chrysler Motors Corp. and Unix System Laboratories Inc. In the other letter, DaimlerChrysler CIO Susan Unger said that SCO had no right to seek such a certification in the first place. 48371

READ MORE ONLINE

For full coverage of SCO's legal fight against Linux, go to our Web site.

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BRIEFS

Sun Benefits From Microsoft Deal . . .

Sun Microsystems Inc. reported a preliminary fourth-quarter profit of $795 million, thanks to its legal settlement with Microsoft Corp. in April [QuickLink 45957]. Sun recorded a $1.6 billion gain from the settlement in the quarter, which ended June 30. Revenue totaled $3.11 billion, up 4% year over year. Sun said the results aren't final because it's waiting for the U.S. Securities and Exchange Commission to confirm its accounting of the settlement.

. . . And Eyes IBM, Intel Chips for OS

During a teleconference about the financial results, Jonathan Schwartz, Sun's president and chief operating officer, said the company is looking at porting Solaris to systems built around IBM's Power microprocessors and Intel Corp.'s Itanium chips. The goal would be to drive more shipments of the operating system, he said. Sun wouldn't comment further about the ports.

Dell Gets Modified Notebook Adapters

Mobility Electronics Inc. in Scottsdale, Ariz., said it has resumed shipments of notebook PC power adapters to Dell Inc. after completing a revamp that blocks the use of third-party power cords. Dell this month recalled about 38,000 adapters sold with its Latitude and Inspiron systems, saying that third-party cords could cause electrical shocks [QuickLink 47962].

Short Takes

MICROSOFT will pay $20 million to settle a trademark dispute with San Diego-based Lindows Inc., which agreed to change its name to Linspire Inc. . . . ORACLE CORP. said it will fully support an Asian version of Linux jointly developed by a Chinese vendor and a Japanese company that's majority-owned by Oracle.

Continued from page 1

HP Events

The company will announce its plans for the unnamed technical solutions conference at next month's HP World in Chicago, said David Parsons, vice president of HP Americas.

Parsons said the four user groups will likely co-produce the new conference and work with HP officials on a steering committee that will choose conference content and vendors that rent booth space at the show.

But exactly how much power the user groups will have in controlling the content and how much money they will make from the conference are questions that haven't been answered. Parsons said each user group would be able to register members and earn membership fees, as well as earn proceeds from booth sponsorships from other vendors.

Potential Benefits

The idea of a single conference is a response to requests by HP customers for comprehensive information about hardware and software technologies, Parsons said.

One purpose of the conference would be to train HP employees alongside partners and customers in new technologies, he said. The company would also be able to "bring the full brunt of HP resources" to the new event, including appearances by top executives to describe HP strategy, direction and focus, he added.

Parsons said HP has sent letters to or held discussions with leaders of all four user groups. He said he expects to get feedback from the groups by the end of this month.

HP recognizes the need to support the user community's independence and ability to offer quality input, Parsons said. "The last thing we want is user groups that have lost that ability to communicate," he said.

Parsons said some of the user groups might opt to keep their own conferences alive, and he didn't rule out some level of support for those efforts.

But on the matter of whether the single-conference plan might result in fewer user groups, Parsons indicated that it could eventually. "In the context of the bigger picture, at some point one [user group] is always better than four or two," he said.

Chicago-based ITUG, which is also known as the International HP NonStop Users Group, plans to continue its annual conference despite the HP plan.

Users "would much rather go to the boutique, focused show than be lost in the crowd at one of these general Comdex-like shows," said ITUG Chairman Richard Buckle, who is also a consultant at Insession Technologies Inc. in Boulder, Colo.

If HP pulled its support for the annual ITUG Summit, which this year is being held in October in San Jose, "it would be a financial hit but wouldn't spell the end," Buckle said.

OpenView Forum International is still deciding how to respond to HP's proposal and wants more information on funding and how the voices of its members would be heard, said Henry Wojcik, president of the 8,000-member group. Wojcik expressed reservations about the effect of HP's plan, noting that a single conference might be of greater value to hardware- and operating-system-centric user groups than it would be to OpenView software users.

> **If you surrender your premier event, what is your purpose in life beyond that?**
>
> DENYS BEAUCHEMIN, PRESIDENT, INTEREX USER GROUP

Chicago-based OpenView Forum remains independent of HP but works with the vendor to produce the Software Forum, which was held last month in Montreal. It operates on an annual budget of about $1 million, nearly all of which is raised at the annual event, Wojcik said.

Mixed Responses

"I don't think HP wants to hurt us with this proposal, and that's why they are contacting us," added Sandra Potter, executive director of OpenView Forum.

"Our event is much more of a people-networking event than HP World," she said. "We are worried about the dilution of that people-networking role, and we have to consider the financial impact."

But the idea of having a technical solutions conference was welcomed by members of Encompass, said Kristi Browder, president of the organization that has its roots in the Digital Equipment Corp. user group.

"We don't feel like we're going to be shortchanged in it at all," she said. "It's our responsibility to help them as much as it is for them to help us." HP will develop a revenue-sharing plan that meets Encompass' needs, Browder predicted.

However users view it, HP's proposal probably isn't intended to marginalize user groups, said one analyst.

"It would be a tough transition to one conference, but I see lots of reasons to do it," said Mary Johnston Turner, an analyst at Summit Strategies Inc. in Winchester, Mass. With a bigger conference that covers a range of topics, she said, HP might be able to lure higher-level executives, including CIOs, and help cut down on the need for users to travel. **46350**

Content World Show Bites the Dust

Promoters of the 4-year-old Content World trade show said last week that the event is being canceled this year due to "decreased exhibitor and sponsor interest."

The cancellation comes less than a month after the granddaddy of all IT trade shows, Comdex, was canceled because of what was described as a lack of industry support on the exhibit floor [QuickLink 47727].

John P. Noon, manager of Content World LLC, the Saratoga, Calif.-based company that held the show, said this year's event is being shut down after two straight years of "serious declines in sales and profits." A key problem, he said, was trying to garner interest from vendors to sponsor the event.

Noon said the first show in May 2000 had a "respectable showing," and attendance tripled in 2001. But after the terrorist attacks of Sept. 11, 2001, there was a huge drop in U.S. travel and a decline in the number of people willing to pay to attend trade conferences, Noon said. And with a souring technology economy and cuts in IT and training budgets, "it was like a perfect storm" that halted the show's progress, he said.

There were about 1,200 attendees at Content World in 2001. That number dropped to about 800 attendees in each of the 2002 and 2003 events, he said.

Another problem, Noon said, is that while the content management segment of the industry remained fairly healthy through 2002, the "market has not really found itself." User companies haven't yet created enough demand across all segments, leaving vendors without enough money to sponsor and exhibit at the show, he said.

All hopes for reviving the event aren't dead, Noon said. But he still plans to sell some of the company assets, including several Web site addresses such as Contentmanagement.com and Content.net.

– Todd R. Weiss

Los Alamos Confirms E-mail Security Holes

Latest problem at nuclear lab: Workers sent classified messages insecurely

BY TORR R. WEISS

SECURITY TROUBLES at Los Alamos National Laboratory continued last week as officials confirmed that workers recently sent out an undisclosed number of classified e-mails over a nonsecure system.

The disclosure came less than two weeks after the New Mexico-based lab announced that two removable computer disks containing classified nuclear weapons data were missing [QuickLink 48226]. That incident marked at least the third time since 2000 that storage media containing classified information has been lost at the facility.

Los Alamos spokesman Kevin Roark last week confirmed that the lab recently discovered new incidents of classified information being sent through a nonclassified e-mail system. "We have had occurrences recently, yes," he said. "We have had them in the past. It's anticipated we will have them in the future."

Questionable Judgment

Roark said the incidents occurred when scientists at the lab, which employs about 12,000 people, incorrectly judged information as being classified versus unclassified and sent it without asking for assistance in categorizing the content of their e-mails. Such incidents are always promptly reported to the U.S. Department of Energy and other agencies, as required by law, he said.

When such incidents recur, employees are given additional training to remind them of the proper procedures, Roark said. The problem is that there are "vagaries in the classification rules" that can make it difficult to determine what's classified. Roark said that he couldn't comment on the number of classified e-mails that were sent over the unclassified e-mail system but that it was "a very small number."

"We'd like to get that to zero," he said. "But you've got to understand, you can't legislate perfection on people. All you can do is tell them in security briefings and reiterate it every time you talk about security."

Earlier this month, the lab suspended most activities while continuing the investigation into the missing disks.

Security experts and analysts expressed varied opinions on the recent security incidents at Los Alamos.

Scott Larson, a managing director at Stroz Friedberg LLC, a New York-based consultancy that specializes in computer forensics, acknowledged that accidental releases of sensitive information using nonsecure e-mail systems are unavoidable. But he was critical of the lab's position that such incidents are mostly attributable to human judgment.

"The . . . throwing-your-hands-up approach is unacceptable for this kind of information," Larson said. Classified and nonclassified e-mail systems must be completely separate, and the people who use them must be trained to know the difference, he said.

Nathaniel Palmer, a security analyst at Delphi Group in Boston, called the security lapses "scary." Palmer said he's amazed that a nonsecure e-mail system is even used in the lab, when instead one system could be used by everyone and all correspondence could be better monitored.

Other analysts were more forgiving.

Pete Lindstrom, an analyst at Spire Security LLC in Malvern, Pa., said it's possible that the Los Alamos facility experiences no more security lapses than other classified government facilities but that officials there are more willing to discuss problems publicly. 48364

Continued from page 1

Army in Iraq

itary think tank that's sponsored by the U.S. Department of Defense and based at Fort Leavenworth, Kan.

After studying the Iraq war up to the fall of Baghdad, the CALL analysts found that the performance of logistics and supply chain operations were "barely above subsistence level," in large part because of problems with software based on radio frequency identification technology (RFID) and network communications.

The logistics problems were among the findings detailed in a 542-page book that resulted from the review of the war, which was commissioned by the Army's chief of staff. The book, titled *On Point*, was published by the Army in late May. It is posted on CALL's Web site but can't be printed, downloaded or copied.

There is no one answer to why the logistics failures occurred, said Gregory Fontenot, a retired Army colonel who was one of the three co-authors of the book. But, he added, "in my assessment, the biggest single problem was the communications issue."

BATTLEFIELD BENEFITS

The CALL analysts cited the following positives about the systems used in Iraq:

- The Army's digital network [illegible] and [illegible] and action, allowing commanders to make decisions rapidly.
- The supply chain systems did help achieve "lean maneuver" of supplies.
- The Army linked its first fully digitized division during the war.

The supply chain systems worked as expected until combat began in Iraq, after which the Army's network was quickly stretched too thin, according to Fontenot. "In a civilian organization, you establish connectivity before you move," he said. "We didn't have that luxury."

The Army did stress-testing on its battlefield systems before the war, but Fontenot said nothing could have fully prepared them to deal with fast-moving combat operations involving 150,000 troops and several million supply items.

The Army is already working to replace its 13 core logistics systems, which include several thousand applications, with a version of SAP AG's software tailored for defense operations. Lt. Col. Forrest Burke, a logistics network task force leader in the Army's G-4 logistics information branch, said the custom systems now in use date to the 1960s and 1970s and weren't written to be network-friendly.

Source of Frustration

If SAP's applications had been in place prior to the start of the war in Iraq, the Army simply could have installed an RFID module and "we'd be in business," Burke said. But he added that the communications infrastructure in Iraq was poor when the war began. "Probably our greatest frustration was the inability to connect all these legacy computers to the network," he said.

In addition, the Army was unable to start deploying transmitting devices with satellite dishes and readers that can pull information from RFID tags attached to supplies until just before the U.S. launched its attack. As a result, the ability of logistics managers to track supplies plummeted after the goods reached Iraq, Burke said.

Supply chain visibility has improved since then, according to Burke. He said that about 100 transmitters are now in place as part of RFID systems supplied by Savi Technology Inc. in Sunnyvale, Calif. In addition, IP-based satellite long-haul connections have been installed at all of the Army's supply warehouses in Iraq, and most of the RFID data traffic related to logistics is being moved to secure wireless LANs that are connected to the satellite links.

Another problem was that the logistics systems weren't flexible enough to deal with exceptions and glitches, Burke said. For example, if a combat unit unexpectedly changed its location, there was no way to reroute its supplies. The Army is discussing a possible resolution of that problem that would involve the installation of a customized version of SAP's CRM applications, said Burke. 48349

MARYFRAN JOHNSON

Educate Your CXOs

I WAS CHATTING UP the CIO of a large manufacturing company recently, and we got on the subject of who really runs his IT organization. He singled out two key IT executives, one in charge of the infrastructure side — all the hardware, networking and moving parts — and one in charge of the software side, where the data management, enterprise applications and business logic live.

Yet the goals for his dual managers were worlds apart. The infrastructure expert was charged with finding ways to tamp down costs and do everything "better, cheaper and faster," as the CIO put it. His software manager, on the other hand, was encouraged to experiment with new applications and, ultimately, to spend some of those savings from the hardware side on new stuff that could advance the business.

So, with the major bases covered, what exactly was left for this CIO to do? (I just had to ask.) "Ah," he said, with a big grin and no offense taken, "I'm in executive sales."

What he meant, of course, was that his time is spent in the role that all successful CIOs master — that of business communicator, educator and guide for the so-called CXOs (that senior business lineup of CEOs, CFO, COOs, CMOs and so forth). If the chief technologist isn't regularly playing Pygmalion with this bunch, the IT group is destined for a leadership change.

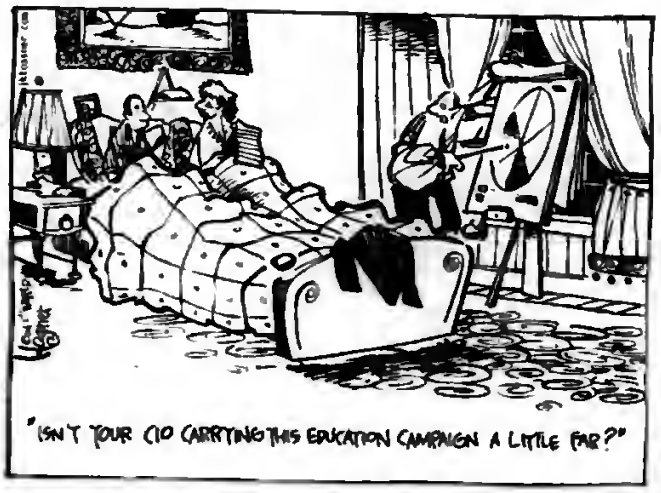
I realize that by this point in your career, you've heard and read — ad nauseum, even — plenty of well-meaning advice about the importance of educating business colleagues and speaking their language when you do it. But what I look for when this subject comes up are detailed examples, actual tactics and practical tips on how CIOs can pull it off. I found plenty of that kind of useful advice in our "Educating Your CXOs" story (on page 31, and online at QuickLink 47887) — including a CXO "syllabus" from a business professor with a sense of humor.

"They really do need to have a clue," says Mark Jeffery, a professor at the Kellogg School of Management at Northwestern University, referring to the future MBAs in his classes. His students hear about the real-world complications of ERP systems, the dangers of botching a security backup system, how tech trends in XML or CRM can affect management thinking, and the risks involved in an IT project (failure being the biggest one).

Our story also digs into a few real-world scenarios where CIOs are turning CXOs into knowledgeable allies.

"As a CIO, I always have an agenda. You're crazy if you don't," says Rob Tabb of Ecolab, a $3 billion-plus developer of cleaning and repair products. He describes using both formal and informal approaches to this fine art of educating CXOs, including one-on-one chats during coffee breaks and business lunches in addition to the more standard management council meetings. "You have to think of it as a campaign," Tabb told us. "You have an end state you're trying to get to, and you think, 'How am I going to educate this group of executives to get them to a common point of understanding over time?' "

That "over time" part is a particularly important point. The IT education of your business colleagues is a journey of 1,000 conversations, not a destination arrived at after one big-bang strategy briefing. Your homework assignment is to think about where you are today on that journey. Are you ready to be in "executive sales"? **48322**



VIRGINIA ROBBINS

The Ragged Edge of Outsourcing

AS I APPROACHED my neighborhood sushi restaurant, the friend I was meeting for dinner called. He wouldn't be able to make it; he had to take part in yet another conference call with India. But he promised to make it up to me somehow if I could please, please, pick up dinner and bring it to his place.

He was hungry and wired when I arrived at his door. "American firms just don't understand what outsourcing does to a company," he ranted as he tore open the package and began mixing wasabi into his soy sauce. His day had started with a conference call with India at 8 a.m. and had finally ended at 9:20 p.m. with the follow-up conference call that had scrambled our dinner plans. "It's not that the work is better or worse; it's the time that it takes to communicate with a team of individuals half a world away."

For various reasons, his company has faced extreme financial difficulties during the past few years. Employees in all areas, including IT, have been let go as the company has struggled to match costs with its shrunken revenue. Under pressure from the CFO, and desiring to retain some development, a new CIO recommended outsourcing overseas.

Of the remaining IT managers, a small group was selected to manage the outsourcing project. A respected international consulting group was chosen to assist. Because only those who had the strongest track records and the most positive attitudes were selected, my friend felt honored to be on the team. Nine months later . . .

"Business owners still aren't happy with the fact that application design meetings need to be held at 7 a.m," he said, jabbing his chopsticks into the pickled ginger. "Projects are taking three and four times longer because

overseas workers don't understand our business the same way my old employees did. It's not that one group of developers is smarter than the other; it's that my old group had more experience on the existing applications than the new one does. In a couple more years, it will probably be OK, but for now, it's a disaster."

I spent my undergraduate years studying economics along with computer science and mathematics, and I understand the benefits that globalization brings me. I like my set of $1 made-in-China porcelain bowls, and I love commuting in my Volkswagen Jetta, which was made in Mexico from parts manufactured around the world. And while it's probable that one of the sushi chefs who prepared our dinners is in the U.S. on a temporary visa, it's certain that about a fifth of my staff was born outside the U.S.

Yet, as an economist, I couldn't help but think about the real value of the decision implemented by my friend's CIO. On one level, it appears to be a very good choice. Development is still going on, and the CFO can confirm that less cash is being spent than before. However, the business owners are very unhappy. With productivity three to four times lower, the total value added by IT is a fraction of what it used to be, and the average value of IT goods and services produced per average dollar spent is lower than before. I wonder which, in the long term, will be replaced first, the CIO or the outsourcing solution. 48217

DAVID MOSCHELLA

Why Comdex Doesn't Matter

MUCH HAS BEEN written about the recent postponement (and possible demise) of Comdex. A few years ago, the same forces that built what became the biggest conference in any industry — critical mass, celebrity glitz and momentum — all shifted into reverse, with predictable, familiar and cumulative effects.

But to me, the story is much more interesting than the implosion of a once extravagant industry event. In many ways, Comdex is emblematic of some important changes in our industry, with significant implications for the way the IT business sees itself and speaks to the outside world.

Think about it: What was the focal point of Comdex? While a lot of business was done on and off the exhibit-hall floors, it was the keynote addresses that drew the most media attention, with people such as Bill Gates, Larry Ellison, Michael Dell, Scott McNealy and Carly Fiorina usually playing the industry leadership roles.

No offense to these enormously successful executives, but who is really listening to them anymore? There is no better example of this than Microsoft. There was a time when the introduction of a Windows 95 or 98 was front-page news, not just in the IT press, but also in the major business magazines and even in local newspapers.

But how many people just can't get enough information about Longhorn or Tablet PCs? Ditto for the latest products from Oracle, Dell, Sun and Hewlett-Packard. The reality is that very few products are especially newsworthy these days. This isn't the fault of the vendors; it's simply the case that the IT industry's center of gravity has shifted. Only in the consumer market are gadgets still exciting, and the Consumer Electronics Show is the place to go for that stuff.

In the business market, it's what you do with IT that matters. This is a sign of industry maturity, and it's a good thing. We can look back and see our business's traditional focus on products as an early phase in which we primarily deployed enabling technology. We should be happy to have outgrown that phase, even though many of us will miss the glitz of the annual Comdex carnival — at least a little bit.

Of course, once you start talking about what we're doing with IT, things become much more complicated, fragmented and diffuse. IT is used for a zillion things these days, and there are major differences by sector. That's why I don't think the IT industry will see another Comdex for the foreseeable future. Our needs are better served by more focused, less glamorous events.

But that doesn't mean the IT industry doesn't need a new generation of spokespeople. The product companies have carried their share of the burden and now need some energetic reinforcements. These new voices should come from the major IT services companies (IBM, Accenture, EDS, CSC), the dot-com giants (Google, Amazon.com, eBay, Yahoo) and even from customers themselves (businesses, governments, schools). The result will be a much more diverse, compelling and representative IT industry. 48240

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READERS' LETTERS

Why the Offshore Backlash Will Dissipate

OF COURSE the debate and the backlash about offshoring will go away sometime in the future ["Gartner: Backlash Against Offshoring to Vanish by 2006," QuickLink 47550]. Why? Because all those affected who couldn't find a new IT job will be too busy flipping burgers, working cash registers, sweeping floors or begging on street corners to be concerned about what is going on in the IT field.

Thomas Zabel
Software engineer (unemployed), Dallas, zabelt@acm.org

AS IF I WASN'T FEELING insignificant and depressed enough after having my job transferred to India nearly a year ago. Now it's official – I am part of "an insignificant issue that will go away."

After 20 years of working hard in this industry, I now cannot find full-time employment in my chosen career. Between the offshoring and the leftover H-1Bs from the Y2k "crisis" still here undercutting me on salary, I feel fortunate when I can find a contract of *any* duration.

Andrew Linton
Database administrator, Amsterdam, N.Y.

I FIND THE ACCUSATION by Craig Baty of Gartner that American IT professionals are racist and xenophobic to be unfounded. No one in this industry that I am aware of enjoys the idea that IT jobs are leaving our country, but that has nothing to do with racism and xenophobia and everything to do with the desire to remain gainfully employed in the field.

Robert Manning
Software engineer, Stanton, Calif., RobertM782@aol.com

Leaders Aren't the Same as Heroes

COMPUTERWORLD'S definition of a hero is far apart from mine. I found no heroes among the 2004 Computerworld Honors finalists ["IT Heroes Think Big," QuickLink 46504]. I found no one who put his life on the line or even his job at risk. Make no mistake. What they accomplished was, in some cases, remarkable and innovative. But it wasn't heroic.

Gerald Gosewehr
Warrenville, Ill.

No-Bull Approach Gets Thumbs Up

I ENJOYED READING Gopal K. Kapur's column "I'm OK, the Bull Is Dead" [QuickLink 47139], which (by design?) followed the format of his advice in that he started with a succinct statement of the message he wanted to deliver, proceeded to flesh it out and ended with the explanation, which was illustrated by a brilliant example. I have to wonder, though: What happened with Kapur's son, the car he was driving and the bull?

Steve Mugiri
Worcester, Mass., mugiri@netscape.net

THAT WAS A GREAT little article. I especially liked Kapur's wife's line: "This is one of your punch-line things, isn't it?" She's pretty good at cutting to the chase too!

Phillip A. Kriley
Systems manager, Allegheny Ludlum Corp., Renfrew, Pa.

Booth Cost Is Comdex's Problem

THE ANSWER to the Comdex problem was in the story ["User Indifference Hurts Chances of Comdex Revival," QuickLink 47782]. When vendors don't purchase booth space and instead prefer to do business in their hotel rooms, then the booth cost is too high.

Dennis Reiley
Flint, Mich., shanedr@sbcglobal.net

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 500 Old Connecticut Path, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com Include an address and phone number for immediate verification.

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Integration Imperatives
An industry group is pushing the Global Integration Framework to stem the tide of failed EAI projects. **Page 25**

FUTURE WATCH
Producing the Future
Some of the most important things in IT today, such as Unix and the Internet, have roots at MIT. More innovations are likely to follow, says MIT CIO Jerry Grochow. **Page 26**

SECURITY MANAGER'S JOURNAL
FTP Server Offers Illicit Goods
A random check of a public FTP server uncovers an illegal distribution copy of Windows at Mathias Thurman's company. **Page 28**

Through Thick AND Thin

MICHAEL MORSENSTERN

While thin-client computing serverware programs such as Citrix's MetaFrame are gaining ground, for most companies the technology is still a road less traveled.

By Robert L. Mitchell

CHARLES REDDING needed a better way to deploy a suite of 43 line-of-business applications to his rapidly growing list of remote offices. Redding is CIO at Masco Contractor Services, a Daytona Beach, Fla.-based division of Masco Corp. that provides contractor installation services to businesses and consumers. With 11,000 employees in 260 field locations and acquisitions that have kept the company growing at a 25% annual clip, he decided to centralize and provide virtualized access to those applications by way of MetaFrame Presentation Server, thin-client computing software from Citrix Systems Inc. in Fort Lauderdale, Fla.

Now when a new store comes online, Masco can immediately provide secure access in an encrypted session for any client with a Web browser and a network or Internet connection. "We go back and standardize equipment, but from Day 1 that's not a mandatory thing," Redding says.

Providing branch office access to key line-of-business applications is

Continued on page 22

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...from page 19

...ss of thin-client computing ...are also known as server-... computing or virtual user interface software. Virtualization makes the management of desktops easier by ...ving applications to a back-end server. Low overhead requirements on the client allow IT to delay PC upgrades or move to Windows terminals.

Virtualization also improves security by keeping data centralized — only screen updates and keystroke information pass between the thin client and server. The systems have also added support for authenticated remote access and Secure Sockets Layer (SSL) encryption so users can securely access applications via the Web.

Those features have stoked renewed interest in thin-client technology as a way to solve specific problems. Yet most companies that use thin-client serverware deploy it across only a portion of all desktops and use it only to access a select group of applications.

About 90% of Fortune 1,000 companies have deployed applications using technologies such as MetaFrame or Microsoft Corp.'s Terminal Server, but most have installed it on only 10% to 15% of desktops, says David Friedlander, an analyst at Forrester Research Inc. That trend is unlikely to change anytime soon, say users and analysts.

Limiting Factors

It seems that users and administrators are still more comfortable with a fat client. Kansas City, Mo.-based America's Life Inc., which has virtualized nearly all of its 50 applications on 32 MetaFrame servers, still gives its 550 users a full PC. "It gives me the flexibility to still run applications locally if I ever should need to do so," says CIO Randy James. But, Friedlander points out, that means the PC still needs to be managed and patched.

Meanwhile, improvements in software deployment and desktop management tools have lowered the costs of managing traditional Windows desktops, reducing the relative benefits of thin-client systems in this area.

Power users still aren't a good fit for thin clients. Even with today's fast servers, resource-hungry applications such as computer-aided design systems still work better on stand-alone machines. For some mobile users, the need for a continuous network connection has limited the technology's appeal. And older applications can suffer compatibility problems because the application must be hosted on a Windows server running MetaFrame or other thin-client serverware. "We've had some problems, and most of it was specialized legacy stuff, applications running off Cobol," says Redding.

The evolution of the Web has given users another thin-client alternative. As companies move toward Web-enabling internal applications and enterprise software vendors increasingly provide Web-enabled software, users can access line-of-business applications by way of Web portals and SSL VPNs.

Thinning Ranks

Citrix's MetaFrame has long been the leader in thin-client serverware, and after a wave of consolidations in the past two years, administrators have fewer alternatives. Citrix holds about 75% of the market, with the rest split among Microsoft, Tarantella Inc. and a few others.

Sales of the technology actually dipped in 2002, but interest has picked up again. Citrix has broadened its offerings and positioned its products as a way to provide a single point of access to a mix of application types. Its Access Suite includes an SSL VPN product, single sign-on software and a conferencing tool. But the bulk of Citrix's business remains with MetaFrame Presentation Server, which it promotes as an easy way to Web-enable applications without rewriting them.

Microsoft has added features to Terminal Server such as improved scalability and a faster version of the Remote Desktop Protocol client that make it an attractive — and less expensive — alternative to MetaFrame. But Citrix still leads the pack with the most enterprise-class features, including scalability, load balancing and fault tolerance.

"It's improved to the point where you can have data centers in different regions publishing the same applications and failing over to each other seamlessly," says Marc Mangus, national director of technology at systems integrator Vector ESP Inc. in Houston.

That was a critical feature for Toronto-based Scotiabank, which put 20,000 users and 1,000 bank branches on a MetaFrame server farm last July. It has two 50-server sites to provide fail-over support for 35 branch office applications, says J.P. Savage, the bank's senior vice president of systems.

Somerfield Stores Ltd. in Bristol, England, got around the problem of how to host older applications by choosing a product that doesn't require them to reside on the same system as the serverware. Rather than host applications directly, a Secure Global Desktop server from Santa Cruz, Calif.-based Tarantella acts as a middleware layer, presenting a virtual user interface to the end user while communicating to the back-end servers using each system's native protocol.

The grocery chain used Tarantella's product to bring antiquated database applications running in some 600 stores into the data center. That improved performance while giving Somerfield time to design a new database, says John Pelling, head of IT services. The new system paid for itself in 13 months by allowing the company to defer the costs of buying and deploying store hardware and software upgrades, he says.

The most common reason IT managers cite for using thin-client serverware is to save the time and expense of maintaining and replacing PCs distributed across multiple locations. "We can deploy a new application to 500 users in an hour," says America's James.

But Pelling and other IT managers also say they want to Web-enable all of their applications. As applications become more Web-centric, people are likely to move to portal software, says Dan Kusnetsky, an analyst at IDC. But most companies have hundreds or thousands of applications, most of which are unlikely to be rewritten anytime soon.

Thin-client serverware is unlikely to broadly replace fat PCs, Kusnetsky adds, but it will continue to play a role in managing desktop access for specific applications.

James says he thinks companies are missing out by not deploying the technology more widely. He says centralizing desktop applications and data has made it much easier to comply with the Sarbanes-Oxley Act and has reduced desktop administration problems to the point where his staff spends 60% of its time on new projects. "For the typical IT shop, 90% of their time would be consumed just keeping the place running," he says. "I don't know why more people don't do it." 47953

Thin-Client Serverware by The Numbers

- 90% of Fortune 1,000 companies run virtualized applications on MetaFrame or Terminal Server
- 10% of all PCs in those companies use the technology, on average.
- 10% to 15% of thin-client users connect from Windows CE terminals or other thin-client hardware.
- 85% to 90% of deployments that use traditional Windows desktops or laptops as the thin client also run applications locally.

Thin Client, Fat Computer

Oklahoma Heart Hospital practices a different kind of thin-client computing. Clinical staff work at what looks like a typical Windows thin terminal from Austin-based ClearCube Inc. But instead of connecting to a server running Terminal Server or MetaFrame, each attaches to a dedicated blade PC in the hospital's data center. "We get the flexibility, quietness and infection control [because the unit has no fans and therefore doesn't spread microbes] and all these wonderful qualities of a Windows terminal, but we have real PCs and hardware," says Jeff Jones, lead systems engineer.

As with traditional thin clients, only keystrokes, mouse clicks and screen updates are transmitted to the blade PC system hardware, programs and data are centrally located, making it easier to manage and secure. The blades have enough horsepower to handle resource-intensive applications that might bog down a Terminal Server back end. And they can be configured to fail over to a new blade when a blade crashes.

Recently, Hewlett-Packard Co. entered the market with its Consolidated Client Infrastructure. The system consists of HP's t5000 series thin client and a PC blade architecture based on Efficion CPUs from Transmeta Corp.

Blade PCs satisfied Jones' need to have a thin front end capable of supporting a resource-intensive application. But he says the cost of the setup was about twice what he would have paid for a comparable Dell PC. A complete system from HP costs about $1,400 per seat for a 1,000-user configuration.

The approach doesn't make sense to Randy James, CIO at America's Life, which uses Windows CE terminals and MetaFrame. "There's an enormous amount of processing power wasted in that, [and] you still have the same number of operating systems and everything to manage. I don't think there needs to be a one-to-one relationship between users and PCs."

But vendors remain upbeat. "It could be 15% to 25% of the commercial PC business in three to five years," says Keith LeFebvre, vice president of HP business desktops.

– Robert L. Mitchell

AVOIDING APPLICATION CONFLICTS

Softricity's SoftGrid eliminates application conflicts by creating a virtualized environment for each app

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Continued from page 19

just one use of thin-client computing serverware, also known as server-based computing or virtual user interface software. Virtualization makes the management of desktops easier by moving applications to a back-end server. Low overhead requirements on the client allow IT to delay PC upgrades or move to Windows terminals.

Virtualization also improves security by keeping data centralized — only screen updates and keystroke information pass between the thin client and server. The systems have also added support for authenticated remote access and Secure Sockets Layer (SSL) encryption so users can securely access applications via the Web.

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Matters Of Trust

Producing secure products has become a prime consideration at Microsoft, says the leader of the company's Trustworthy Computing initiative.

Q&A

As Microsoft Corp.'s chief Trustworthy Computing strategist, **Scott Charney** *can escalate his concerns directly to the senior leadership team headed by Bill Gates and Steve Ballmer. Charney, a former government prosecutor, also spearheads the company's Security Strategies Group, which works to advance the cause of secure products and services. During a recent visit to Boston, Charney met with* Computerworld's *Carol Sliwa and Robert L. Mitchell to talk about how Microsoft does security.*

At Microsoft, much of the decision-making power rests with the product groups that, to some extent, might have competing interests with what you're trying to do. How much power do you have to effect the changes you need to make? The Trustworthy Computing initiative was announced by Bill Gates. And Steve Ballmer is behind it. And Craig Mundie, my boss, is kind of the father of Trustworthy Computing. He sits on what's called the senior leadership team, which is Bill and Steve and Craig and Jim Allchin, who owns the Windows platform, and Jeff Raikes, who owns the Office platform. As a practical matter, at the highest levels of the company, there is a commitment to doing this. And if I see an issue and I say I'm going to make sure this is being handled the right way, my boss is Craig. So my escalation path is very short, and the people who I escalate to actually run the company.

There are always competing interests, no matter what your line of work may be. The company's publicly held. We have an obligatioo to shareholders. But security is now good business and very much aligned. So that tension, to some extent, post-9/11, has been reduced dramatically.

Isn't there tension between the business and the consumer sides, wanting to make things as easy as possible to use versus needing to make them as secure as you can? There is tension there. To some extent, one of the ways to do it is to try to make the security as easy as possible and transparent to the user so they get the security without having to actually manage it or have it impact their experience. On the other hand, there are times when the technology is just not ready.

A smart phone is a great example. It allows me to resync my calendar and my mail. From a security perspective, a lot of people lose these in taxi cabs and leave them behind at restaurants. So maybe one of the things we should think about is encrypting everything on this device to protect the consumer who might lose this device. I've had this discussion with the mobile device people. And what they've said is, "This is a small device, very competitive market." They've got price points in the consumer market that, if they passed them, then people won't buy the product. Moreover, as a practical matter, people like the calendar and the e-mail, but they also want to make phone calls. If you encrypt everything on this device, every time anyone accesses anything like a contact, you have to decrypt it and then when you close that screen, it's got to be re-encrypted. If you encrypt and decrypt every piece of information in every e-mail on the fly, you will have two minutes of talk time. And the reason for that is the battery. There have been no major advancements in battery life. So right now, we're not going to encrypt this device, even though it'd be great for security, because the device becomes unusable.

For security to be embraced, it has to work. People understand that security creates a drag on productivity. The fact that you have to eoter your password before you can sign oo takes two or three seconds. People have acceptable levels. It takes a minute or two to lock your door when you leave your apartment and open it when you come back. I think most people say, "Locking my door is an acceptable amount of time."

Now you have to think about functionality in the same way. You have to figure out how to provide this functionality in a secure way, and then I figure out how to do this security in a way that doesn't undermine the functionality or so degrade the user experieoce that they turn it off.

The key thing is that as you try and balance these things. What you doo't have anymore that you used to have is, "I don't want to talk about security. I don't want to have to do security. It's not important." Now, at every level of the company, whether it be a developer, an architect, it's like, "OK. How can we balance these competing interests, because they're all important?"

How have you measured progress on the Trustworthy Computing initiative? There are different metrics that we use in different ways. Very often you look for proof points, and some are specific and some are more general. For example, one of the things we have now is the security push and review process. There are things that we can measure internally about the oumber of components that have gone through this percentage of large products and all of that. Then you get the external measures — the number of bulletins you release. . . . Ultimately, the goal is to make the customer's life easier and make security more manageable. So you look at Sasser. For Windows Server 2000, you had to download this critical patch. For Windows Server 2003, it was a nonevent. When you look at that, you go, "Well, 2003 went through a security push." Someone designed a worm and this product was not affected. The customers who had upgraded to that product didn't have to deal with it at all. This is clearly better than where we were two years ago.

Did you establish specific metrics? We didn't set targets. We didn't say we hope to get down to *x* vulnerabilities in *x* years. We're measuring where we're better than we were before and where we're not. Whenever we have a critical or an important vulnerability, we do a root-cause analysis. And the root-cause analysis is designed to figure out, OK, bow did it come to pass? Is it just a question of training, bad application, bad development tools, bad testing tools? You can figure out how you can improve the process. You keep trying to make it better and better. And you measure your current state compared to your old state. . . . Zero vulnerabilities would be our target. It's also not a realistic one. **46109**

GAME PLAN

For more of the Charney interview, including a look at his goals and how he plans to reach them, visit our Web site.

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SUNDAY, SEPTEMBER 12

CIM Basics, CIM Using and Extending CIM Schema

WBEM Infrastructure Basics and Integration: What is a MOF and How to Write Models

SMI-S and CIM for Storage: Server Management with WBEM/CIM and CIM CLI; ERP CIM based Directory and Management of Communications Infrastructure with SAF, AIS, HPI and DMTF

IPv6: CIM Enabled High Availability Solutions, and Grid Computing with CIM

What You Need to Know About Compliance

Digital Rights Management in the Enterprise

Enterprise Linux Commodity Clusters and Grids - A to Z: What They Are, How They Work, How They Pay Off, and Who's Doing Them Today

The Critical Value of Software Asset Management Through Benchmarking

Information Lifecycle Management: Managing Information Not Data

MONDAY, SEPTEMBER 13

Opening Remarks

Opening Keynote

End User Case Study

Industry Leader Presentation

End User Case Study: WAN Optimization Technology Facilitates Enterprise Application Deployment for Global Corporation

Industry Leader Presentation

DMTF Overview

Panel: CIO Insights

- Managing Truly Global Enterprises
- IT Program Success from the CXO Perspective
- IDC Analyst Briefing
- Utility Computing; Security and Identity Management; Application QoS Management; Networking, Grid Computing
- WBEM: Pegasus

End User Case Study: Managing the Distributed Computing Environment: The Paradigm Shift

Industry Leader Presentation

The Impact of Storage Network Management Techniques in Managing a Distributed Enterprise for Business Continuity

Strategies for Selecting Service Management Software

Business Continuity Solutions for Geographically Dispersed Data Centers

MONDAY

"The Compliance 12-step"

SOA Roadmap - The Principles for a Successful Incremental Implementation

Effective Data Valuation for Optimized Disaster Recovery Efforts

TUESDAY, SEPTEMBER 14

Opening Remarks

Opening Keynote

End User Case Study

Industry Leader Presentation

End User Case Study

Industry Leader Presentation

CTO Insights Panel

- Service Level Agreement: High Availability, Asset Management
- SANs, Servers, Diagnostics
- DMTF Command Line Interfaces WMI Mapper

End User Case Study

Industry Leader Presentation

End User Case Study: Operational Management Across a State wide Enterprise

Panel: Enterprise Security Architecture - A Methodology for Managing Information-security Risks

Integrating and Automating Your Business Process - How Do You Make It All Work?

Networking Priorities for 2005 Users Speak Out

Very Large Scale Implementation of Service Oriented Architecture

Panel: A 360 View of Utility Computing Reality and Directions

WEDNESDAY, SEPTEMBER 15

Application Modeling: Telecommunications, Policy Storage, Policy, Conformance Testing a Profile, Management Protocols Solutions with SAML and WebServices, Enterprise Management Suites that are CIM Enabled: Top-down CIM Modeling of Business Applications; Application SLA Attainment with CIM and AQRM

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  - ❑ IT Storage Management
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INTEGRATION Imperatives

One industry group has put together a framework of standards and practices to stem the alarming failure rate of application integration projects.

BY TOMMY PETERSON

START WITH ONE STATISTIC, and it's easy to understand the mission of the Integration Consortium (IC): 95% of all application integration projects fail, according to a 2003 study by The Standish Group International Inc. in West Yarmouth, Mass. That is, the IT staffs assigned to such projects significantly blow their budgets, exceed their schedules or fall far short of the goals.

In an effort to stem that tide of frustration, the consortium, a 130-member alliance of users, vendors, systems integrators and academic institutions based in Calgary, Alberta, this spring launched the Global Integration Framework. The GIF is an attempt to codify and disseminate best practices based on consolidated standards and to provide the technical support necessary to make the practices work.

Standards groups perform a necessary function, but separate groups often produce warring standards that complicate rather than streamline integration projects, says IC President John Schmidt, who is also Best Buy Co.'s leader of systems integration and middleware.

The need for a more effective, broad-based approach is urgent, because all those failed application integration projects add up to plenty of wasted money, according to IC co-chairman Michael Kuhbock. Industry studies peg the cost of application integration at 35% or more of all IT project costs, which can translate into $100 million a year for big companies, says Kuhbock, who is also CEO of Groundswell Revolution Inc., an integrator and enterprise application integration consultancy in Calgary. The IC says that using the GIF could easily cut the application integration portion of total IT costs in half.

There's a price beyond dollars for unsuccessful integration projects, says Schmidt. "When the business side looks at the IT community, [these failed projects] are one of the things that get questioned, and that undermines our credibility," he says.

The consortium's remedy for the situation starts with the GIF repository containing detailed information about proven methodologies, most prominently Johnson & Johnson's Total Business Integration initiative. The approved methodologies in the repository are supported by a formal data model for integration metadata. The repository also provides access to an enterprise architecture development model in the form of The Open Group Architecture Framework, or TOGAF, an integration design and software framework for standardizing interfaces that was developed by the Avalanche Consortium.

But the IC doesn't define itself as merely a clearinghouse of information or a band of industry evangelists. It's developing a three-year road map that includes training and certification programs for products and procedures that comply with the GIF or GIF-approved standards.

The consortium points to its focus on end users and their concerns. It emphasizes that the GIF is vendor-neutral, but like most similar industry groups, it courts vendor participation and financial support. Mark Tempelmeyer of IBM is co-chairman of the IC along with Kuhbock. The consortium membership also includes Oracle Corp. and BEA Systems Inc., as well as smaller players such as Sonic Software Corp., Fiorano Software Inc., Software AG and Informatica Corp.

So, can one more industry organization, no matter how ambitious or well-meaning, make significant progress toward rationalizing the application integration process in large businesses?

"There's certainly value in what the consortium is trying to do — creating a dialogue between vendors and users on emerging technology," says Gordon Van Huizen, chief technology officer at Sonic Software. "The global framework is very ambitious but may be overly specific at this point." 48120

SOME ELEMENTS OF GIS

[illegible]

INTEGRATION EVANGELIST

For an extended version of this interview with John Schmidt, visit our Web site:

QuickLink 48247
www.computerworld.com

POWER TO THE USER

JOHN SCHMIDT of Best Buy and the Integration Consortium discussed the GIF and users' responsibility in efforts to create standards and best practices during an interview with *Computerworld*.

You come from the user side of the consortium — what does the GIF mean to you? I came to the conclusion that [Best Buy] had solved all the problems we could internally and that for the really difficult problems we needed to engage the broader software community in a different way. I could not solve these problems myself. There had to be some broad-based agreements on key standards. I just felt it was an obligation I had as an end user to be proactive with the community to tell the software vendors what's important and what's critical. So that's when I started going on speaking tours, going to a lot of conferences, writing papers, talking to as many vendors as I could. And ultimately getting involved in the consortium and the GIF. It was an extension of the strategy to solve problems within my company.

JOHN SCHMIDT

Do you recruit your peers? I tell other end users that I feel they have abdicated their responsibility to tell the vendor community what's important to them. Generally speaking, users voice their opinions by not buying the products that don't conform to the standards they think are important. At that point, it's too late. The vendors and suppliers have already invested in the product, and millions of dollars have been spent in development. We need to be telling our vendors two years in advance what they should be building. Then if they don't build it, you say, "We won't buy your product."

Would you say that user empowerment is central to what you're doing? Absolutely. That's part of the vision we're trying to promote and propagate from the consortium board, including all the other vendors. I was concerned about how they would react to this. The vendors actually embraced it. What they've been struggling with is getting a clear message from end users about what they want. End users won't tell them — they haven't spent enough time thinking about it or formulating a clear strategy.

How long will it take for the consortium to effect change in the industry? We have to have short-term goals, but we will not be done in that time. Technology will continue to evolve, businesses will continue to morph, IT's place in business will continue to change. There's an end to it.

— *Tommy Peterson*

Producing The Future

It sounds like corporate IT will have to have very strict standards

FUTURE WATCH

What technical solutions could there be?

...terogeneous environments you ... any companies operate in will ... only more heterogeneous won't they?

Jerrold M. Grochow

Q&A

Vice president for information services and technology

MIT

Grochow earned three degrees from MIT, including a Ph.D. in management. He's responsible for an IT budget of $50 million and manages 250 people in academic and administrative computing. He's also the former chief technology officer at American Management Systems Inc. and a co-founder and CTO at online brokerage Foliofn Inc.

What ...

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47894

MIT Spawns IT Innovations

1961 CTSS (Compatible Time-Sharing System): MIT's Project MAC develops one of the first time-sharing operating systems and one of the first to allow electronic mail.

1967 Multics: Project MAC develops the successor to CTSS, which becomes the first high-availability operating system.

1975 TCP/IP: MIT's David Clark and a team from the Laboratory for Computer Science implement TCP/IP for PCs, resulting in tremendous growth of the Internet.

1977 RSA algorithm: MIT researchers Ron Rivest, Adi Shamir and Leonard Adleman invent the first workable public-key cryptographic system.

1983 Project Athena: MIT deploys a large network of engineering workstations, including a centralized workstation management scheme today known as the "network PC," the Kerberos authentication system and the X Window System.

1994 World Wide Web: MIT's Laboratory for Computer Science forms and hosts the World Wide Web Consortium, led by Tim Berners-Lee, inventor of the Web.

2000 Project Oxygen: MIT develops technologies for human-centered computing and communications.

For more on MIT technology projects, go to QuickLinks a4790 and a4810 on our Web site

THE PAPER AND INK USED IN THE ORIGINAL PUBLICATION MAY AFFECT THE QUALITY OF THE MICROFORM EDITION.

Producing The Future

A powerful security standard and new Internet protocols are among the innovations being hatched at MIT.

IT pragmatists in the corporate world might wonder what they could learn from the eggheads in academia. The answer is, quite a lot — such as how to secure systems from all sides — says MIT's Jerry Grochow. He recently told Computerworld's Gary H. Anthes how MIT contributes to the future of IT.

What has MIT done for the computer world? Going back to the 1960s, Project MAC — which I worked on as a grad student — developed Multics, which spawned Unix. The principles of Multics exist in every major operating system today. MIT was one of the leaders in Arpanet technology and the invention of TCP/IP. Then there's Project Athena from the 1980s that developed Kerberos, a security protocol that Microsoft, Apple and Sun use. We have had some interest recently in our informal Kerberos alliance from a number of Wall Street firms.

What's happening on campus now that might have an effect on IT in the future? There's research going on in Internet protocols beyond TCP/IP. We may have IP forever, but there may be different things riding on top of it beyond TCP that have different characteristics for very low latency, which is a big issue when you ship big data around the network. We've got Dave Clark, who's been a senior researcher for many years in Internet protocols.

How will MIT deal with the information explosion? We are in the process of upgrading the network backbone on campus from a gigabit per second to 10Gbit/sec., the highest commercially viable speed at this point. Physicists are now doing experiments sending a half terabyte from here to CERN (in Geneva) and back again and wanting to do it in near real time.

What lessons might the corporate world draw from MIT? We are the ultimate in the heterogeneous environment. Maybe corporations think they can enforce being an all-Microsoft shop, for example, but there are always some Macs around and always some Unix machines around, and now, of course, there are a lot of Linux machines.

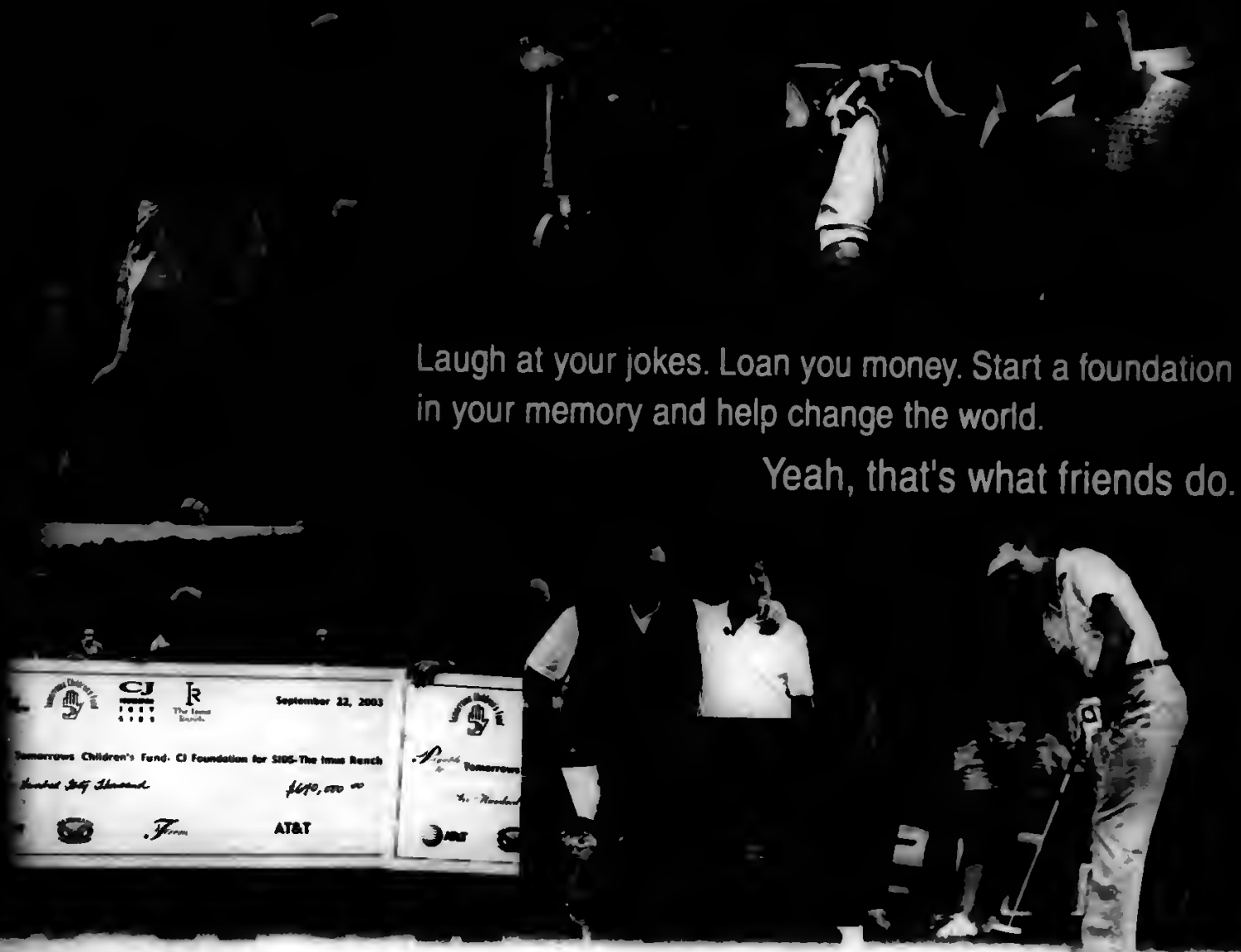
So how have you dealt with security, for example? Universities are not places where you put up a firewall on the front end of the network and assume you have security. Threats are as likely to come from the inside as the outside. We have . . . intrusion-detection systems that, interestingly, point both ways — outward but also inward. And that is what major corporations are finding they need to do. We have adopted security structures that are more application-based and role-based rather than firewall-based. We have Kerberos security, where every person on campus has a security ID that is recognized and interrogated by each application in a consistent way, and where people have different roles with regard to different applications. The Roles system is an additional capability that we developed on top of the basic Kerberos structure. Several other universities have expressed interest in that. CIOs also are looking at what will be the next generation in security architecture that will protect from the inside as well as the outside.

The heterogeneous environments you and many companies operate in will grow only more heterogeneous, won't they? I don't think we can predict which devices will become computing devices and which kinds of services they will want. I'm wearing a new Microsoft watch, and it gets a sub-FM band transmission of weather, sports, news and stock market. It also connects via the Internet to my Outlook calendar, so when my secretary makes a change to my calendar, it actually shows up on my watch. That's a computing device. There are technical issues to making that work, but also security issues and other kinds of things. We have to look pretty expansively in the future at the kinds of computing devices people are going to have and carry around and embed in their clothes.

It sounds like corporate IT will have to have very strict standards. Corporations may be able to say everybody will have the same kind of computer and the same operating system, but are they also telling people what cell phones and PDAs to use? When computing devices are embedded in their clothes, will they tell them how to dress?

FUTURE WATCH

What technical solutions could there be? [MIT is] doing work with a variety of devices and technologies, such as RFID, to allow computing environments to change based on who is present, as determined by their ID device, which might be embedded in their handheld or in their clothes. For example, one of the problems with the current [Microsoft] watch is that I have to go to a Web site to tell it when I am going to another city or else I still get the weather from my hometown. Making it work everywhere automatically would require a much more sophisticated technology, akin to the current cellular phone system. ● 47894



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The Imus Ranch

FTP Server Offers Illicit Goods

A random check of a public FTP server turns up an illegal distribution copy of Windows. By Mathias Thurman

I WAS BATTLING yet another worm infestation this week when it came to my attention that our FTP server might be allowing visitors to download illegal copies of Windows.

As for the worms, we've had one after another, and all of them so far have taken advantage of a well-known Windows vulnerability for which Microsoft has already issued a patch. Unfortunately, until we deploy an effective patch management infrastructure to the entire organization and partition off network segments that can't be patched in a timely manner (specifically our engineering labs), we'll continue to have to attend to these outbreaks.

Eventually, I hope to convince upper management to support my proposed patch management and network segmentation deployment. But we're so busy fighting the worms that we've had little time to document their negative effects. And until we gather some meaningful historical data, it's difficult to build a decent business case.

Piracy Suspected

This week, an alarming e-mail from one of our product marketing managers also took up quite a bit of my time. He had noticed a file named en-win2k-pro.iso in the public, outgoing directory on one of our file transfer protocol servers. The file name appeared to be an installation image of the Windows 2000 Professional operating system.

The .iso extension indicates a file that contains the complete image of a CD-ROM. We often use image files when transferring CD images over the Internet, and they can be used to make software distributions available for download.

Once you have the .iso image, it's easy to restore the image to a CD-ROM. Doing that with the en-win2k-pro.iso file would essentially create a pirated Windows distribution CD-ROM. All you need then is a license key to turn it on. Not good.

SECURITY MANAGER'S JOURNAL

I walked over to the offices of our Unix FTP server systems administrators and asked one of them to log on for me. Sure enough, the file was residing in the outgoing directory. Its size, at about 420MB, matched the size of a Windows 2000 Professional distribution copy. The presence of such an image could get my company into hot water for illegally distributing licensed software.

The public could freely download the image, but the FTP server was configured in such a way that external users, who access the server as anonymous users, couldn't have uploaded the file. Uploads from the public can be directed only to the incoming directory. The only people who can upload to the outgoing directory are users with valid administrative accounts on the server. That meant that an employee or hacker had uploaded the image.

> **I didn't expect that this was the work of an outside hacker. . . . Most likely, this was an internal job.**

Following our protocol for such incidents, I asked the administrator to create an image of the entire file system in order to preserve the state of the server before we started changing things. I didn't expect that this was the work of an outside hacker, since our FTP server configuration and the firewall rules protecting it are pretty strong. Most likely, this was an internal job.

Tracing the User

With the image complete, I asked the administrator to move the .iso image to a non-public directory. Then I asked for the FTP transfer logs and read this: *20040601/ftp.mycompany.com/xfer.20040601.20:31:11 | S,//pub//outgoing/en-win2k-pro.iso, support, 192.168.5.121,, OK,.*

On June 1, an internal user originating from IP address 192.168.5.121 uploaded the en-win2k-pro.iso image to the outgoing directory using a common internal "support" account. This account is shared by many administrators and technical support people, who use it to upload product updates and customer data. To find the user, we had to trace the IP address.

With that information in hand, I went to the Windows help desk manager and had him pull up the server logs to see which user was assigned the 192.168.5.121 address on that day.

Unfortunately, he had to pull the logs from backup archives because we use dynamic addressing, and the addresses had been renewed since June 1. In many cases, users retain the same IP addresses after they expire. But we had to be sure of who held the address in question. It took a few hours to properly restore the log file for the previous month, but we were able to obtain it.

User "jkeatoo" (not his real name) had been issued that address on May 10. Since addresses don't expire for 30 days, I could safely assume that jkeatoo was the user I was looking for. I then searched our employee database and came up with only one person with the last name Keaton. He works as a help desk technician on the swing shift. That made sense, since the file had originally been uploaded at 8:30 p.m.

I was almost ready to call human resources. But before doing so, I wanted to be absolutely sure that jkeatoo had been assigned the IP address on June 1, so I had our Snort intrusion-detection systems administrator pull the IDS logs for June 1 and search for the suspect IP address.

I didn't need to be a Snort guru to see the date of the incident and the username and IP address within the long string of output text. But there was still one last detail. Was the file in question truly a Windows distribution image? I restored the .iso image to a CD-ROM to be sure. It was indeed an illicit copy of Windows 2000 Professional, but fortunately, it wasn't bound to our license key.

Nonetheless, it's still illegal to distribute this software. Now I've given all this information to HR. It's up to them to talk to the employee to see what his intentions were. Maybe he'll get his hand slapped, or maybe they'll let him go. Either way, I'm sure he won't do it again. And I'm relieved to know that it wasn't the work of a hacker.

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum. **QuickLink a1590**

To find a complete archive of our Security Manager's Journals, go online to **computerworld.com/secjournal**

SECURITY LOG

Security Bookshelf

[illegible]

Tarantella Adds Security Features

[illegible]

GeoTrust Offers New Certificates

[illegible]

BRIEFS

AT&T Launches UMTS Data Service

AT&T Wireless Services Inc. in Redmond, Wash., last week introduced a high-speed cellular data service that operates at speeds of 220K to 320Kbit/sec. The company rolled out the service in Detroit, San Francisco and Seattle and plans to deploy it in Dallas and San Diego by the end of this year. The service, which is based on the Universal Mobile Telecommunications System standard, is priced at $79.99 for unlimited data. Users will need to purchase a Merlin 520 PC card, developed by Lucent Technologies Inc. and Novatel Wireless Inc., for $149.99.

PeopleSoft Updates Supplier Offering

PeopleSoft Inc. in Pleasanton, Calif., has upgraded its e-procurement application by providing out-of-the-box connectivity to the independent supplier network offered by Lee's Summit, N.J.-based Perfect Commerce Inc. Perfect Commerce Open Supplier Network Connect for PeopleSoft will allow PeopleSoft customers to link to up to 8,000 suppliers and more than 21 million stock-keeping units of content. It is available now.

Tandberg Releases SIP-based Products

Tandberg Inc. earlier this month announced its MXP technology for improving video and audio quality and collaboration abilities to its videoconferencing products. MXP is based on the Session Initiation Protocol and will be used in three new products as well as the New York-based company's existing offerings. The Maestro MXP, priced at $25,490, and the 6000 MXP, priced at $18,990, are designed to be used in large conference rooms and boardrooms, and the 3000 MXP, priced at $13,990, is for use in smaller spaces.

ROBERT L. MITCHELL

Get Ready for E-cycling

LAST WEEK, Hewlett-Packard and Dell discovered a new competitive weapon in the PC wars: Both of the hardware vendors launched recycling promotions for obsolete computers and other electronic equipment. One can take the cynical view that these well-publicized initiatives are simply an attempt by each company to gain market share by "out-greening" the other. But they're also a response to the small but growing awareness of e-waste's potential toxicity and the need for more responsible disposal practices.

Electronic equipment often contains toxic metals, fire retardants and other carcinogenic substances that can pollute the air and water when sent to landfills or incinerated [QuickLink 43804]. Yet many businesses and consumers continue to simply throw out unwanted equipment. Gartner analyst Frances O'Brien calls business ignorance about e-waste the "single largest problem for the industry."

As public perception of the problem continues to rise, however, vendor practices are facing increasing scrutiny by activist groups. By taking the lead on recycling programs, PC makers hope to head off further negative publicity. And corporate IT's disposal practices are also likely to come under scrutiny.

Both Dell's and HP's new programs take aim at consumers and small-business users. Dell's program lets consumers who buy new PCs return their old systems for recycling at no charge. After receiving a new system, the customer simply packs the old one in the same box and ships it back. Meanwhile, HP announced a joint program with Office Depot. Customers can drop off almost any electronics item at one of the retailer's 850 stores. Office Depot will collect and ship the equipment to one of two HP-owned recycling facilities for free.

Both programs are short-term promotions. HP's offer ends Sept. 6, and Dell says its program will run for a "limited time." Both vendors typically charge $15 to $46 to recycle computer equipment.

One reason for running these programs is to help jump-start the e-waste recycling market. Ultimately, vendors hope to increase the supply of recyclable materials and create demand for recycled content by incorporating it into new products. "It's about helping develop the infrastructure to facilitate recycling," says Walt Rosenberg, a vice president at HP. And that would benefit businesses as well as consumers.

Currently, the nascent e-waste recycling market is dominated by small, regional vendors. Since shipping equipment is expensive, large companies that want to recycle often must work with different local vendors at each of their branch offices. Increased demand should encourage larger players capable of servicing every location to enter the market.

Free promotions to consumers are good publicity for PC vendors, but for corporate IT, cost remains the big barrier. Spending an average of $30 per unit to properly dispose of 1,000 PCs — a process that typically includes wiping the hard disk, providing a documented chain of custody and shipping — looks pretty steep when compared with the cost of a 30-yard Dumpster. As recycling technology and eco-friendly product designs improve, however, those costs could go down.

But the real problem is that businesses underestimate the risks of improper disposal. By placing recycling front and center, HP, Dell and others are educating the public about the problem. That increased awareness will also heighten the risk of negative publicity when equipment that has been inappropriately discarded is traced back to a business. Organizations lacking a clear end-of-life equipment strategy will face stiff fines as the confusing patchwork of restrictive state regulations expands. But the real damage may be to a company's reputation and brands.

On the positive side, the publicity from recycling initiatives is also likely to increase top corporate management's understanding of the problem — and the true value of establishing proper disposal practices. In some cases, IT managers might even get a call from the CEO asking what the company is doing with its equipment. But don't count on it just yet.

HP includes computer take-back programs, when asked, in customer RFPs. In the first six months of this year, the total value of RFPs that included social or environmental requirements amounted to $3 billion — about what HP received for all of 2003. But much of that came from companies in Europe, with U.S. businesses far behind. Still, Rosenberg says, "we've seen interest on the corporate side increase dramatically. Two years ago, that wasn't even measurable."

The day is coming when throwing e-waste in landfills will sound as strange as allowing smoking on airplanes. IT organizations will need to decide soon whether they want to get in front of the trend, or follow it and risk becoming an example. 48235

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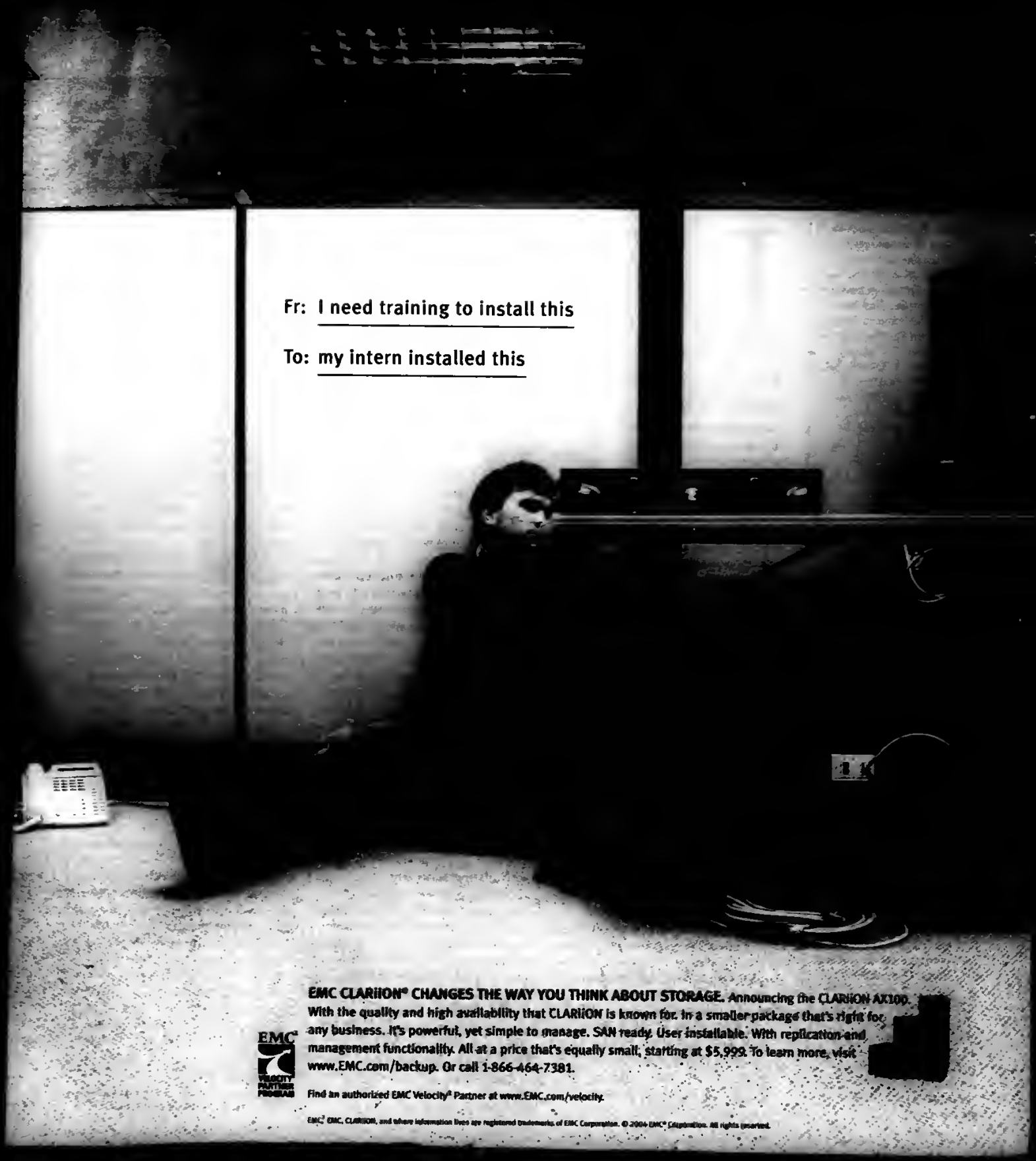
Fr: I need training to install this
To: my intern installed this
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Career Watch
How to dig out from an IT infrastructure disaster; big bonuses for information systems directors; and where companies are putting their software dollars in 2004. **Page 36**

OPINION
Turning Around the Hard Case
Discouraged by subpar employees who just don't seem to care? Don't despair, says consultant Sue Young. It may be easier than you think to motivate them. **Page 38**

Are You Annoying?
Everyone is annoying at times, and IT workers have their share of irritating behaviors. But letting your conduct run amok can wreak havoc in the workplace and even derail your career. **Page 34**

JAMES O'BRIEN

EDUCATING YOUR CXOs

Smart CIOs are turning business executives from potential adversaries into staunch allies.

By Mary Brandel

CIO John Wade was busy this past May, lining up his ducks for St. Luke's Health System Inc.'s annual planning meeting. For the second year in a row, the senior-level executives at the health care facility in Kansas City, Mo., would be gathering for a half day to set business goals for the coming year and determine how those agreed-upon objectives would realign technology priorities.

Wade would be attending less as a strategist, however, than as an educator. "I need to give the management team some appreciation for what can and can't be done with technology today," he says. Wade's reality checks would include telling his colleagues what's possible with radio frequency identification and whether voice recognition technology is affordable. "The idea of physicians walking down a hallway and having their conversation instantly transformed into a medical record — that ain't going to happen anytime soon," he says. Wade even invited an outside consultant to help him with his presentation.

CIOs have always played a role in educating nontechnical managers. But today, with tighter budgets, tougher questions, a demand for guaranteed return on investment and CXOs who know enough about technology to be dangerous, smart CIOs are turning the tables by creating stronger, more knowledgeable advocates out of potentially distrustful adversaries.

The teaching role includes everything from advising CXOs on a new technology for strategic advantage and explaining why an older infrastructure needs a refresh to adding technology realities to a business discussion.

And educating CXOs is essential, given a recent trend observed by John Lutz, vice president of on-demand sales at IBM. More CXOs are sitting alongside CIOs at customer briefings, he says. "They're just different kinds of cats than the previous generation — not as intimidated by technology," Lutz says.

But don't start passing out the pocket protectors. Senior executives still don't want to hear about the relative merits of .Net versus J2EE or even tablets versus handhelds. "It's not a technology conversation; it's a solution conversation," says Nigel Hughes, head of business consulting at Compass Management Consultancy in Chicago.

If you want to introduce Web services into your company, for instance, it would be better to talk about how integrating general ledger and accounts payable systems will result in an invoice-processing free environment than to discuss SOAP or XML. "That's what the CEO needs to know," Hughes says.

Or, as Wade puts it, "If I'm an executive, what are the things I need to know, without becoming a propeller head, to better run my business?" That information results in a better appreciation of what IT is up against, in terms of both technology and funding levels. "You want the management team in lock step rather than letting the IT guy explain away the budget when people start to grouse," Wade says.

> As a CIO, I always have an agenda. You're crazy if you don't.
>
> ROB TABB, CIO, ECOLAB INC.

A crucial part of the CIO's job is understanding what CXOs need to know and the best way to teach them. And there's no one-size-fits-all answer, says Rob Tabb, CIO at Ecolab Inc., a $3 billion-plus developer of cleaning and repair products in St. Paul, Minn.

When Tabb wants to help C-level execs understand, for example, how mobile technology could improve productivity and customer service, as well as the technology's costs, capabilities and deployment challenges, he uses both formal and informal communications. The informal venues are at least as important as the formal ones. In addition to business advisory board and senior management council meetings, Tabb looks for opportunities at business lunches and Tuesday morning coffees held for senior executives. "CIOs have to be extremely sensitive about what all the opportunities are," he says.

Tabb finds most CXOs want to go one level deeper than the one at which they operate day to day. For instance, how stable is the technology? How easy is it to use? What is its expected life span, and will there be cost escalations over time?

One-on-one conversations at the coffees are particularly effective for freely exploring potentially threatening subjects, Tabb says. "You have to think of it as a campaign," he explains. "You have an end state you're trying to get to, and you think, 'How am I going to educate this group of executives to get them to a common point of understanding over time?'"

That's why Tabb always has a list in his head of people to contact and issues to discuss, whether over coffee or lunch or at a meeting. "As a CIO, I always have an agenda. You're crazy if you don't," he says.

Informal conversations are also a good opportunity for C-level executives to ask questions they otherwise wouldn't. "You can't teach the CEO in a way that would be embarrassing," says Doug Neal, a research fellow at Computer Sciences Corp.'s Research and Advisory Services in El Segundo, Calif. "You can also take their personal assistant aside and make sure they know more than the boss does so they can answer some of the CEO's questions."

Sometimes the most important thing to teach is not technology but the complexities of managing technology projects. "Senior executives don't have a gut feeling for how hard this is," says Jeff Wiseman, vice president and officer for technology and informatics at Focus Pharmaceuticals Inc. in Blue Bell, Pa. "When you ask them for $3 million for a project, they have no context for saying, 'That's reasonable; let's do it.'"

Rob Austin, a fellow at Cutter Consortium in Arlington, Mass., suggests the visual approach of writing down all your current IT projects on sticky notes and posting them on a conference room wall. When a customer comes up with an urgent problem, you add it to the wall but also remove one of the sticky notes. "It's a painfully obvious way of showing them that the project you were working on isn't going to get done," he says.

Sometimes the best way to get the attention of C-level executives is to take them off-site. Getting away can have a mind-broadening effect with hands-on appeal. When Wade wanted to educate the chief medical officer at St. Luke's on remote heart-monitoring technology several years ago, he took him to a pilot site to see the technology at work. "It got him to the point where he said, 'This is real,'" Wade says.

Another good reality check is to bring end users into the picture. Ben Harris, deputy secretary of operations and technology at the Florida Department of Children and Families, recently wanted to use Web services to integrate data from disparate mainframe systems. A demo showed the CEO how much value would be gained from adopting Web services, but the testimony of end users sealed the deal, Harris says. "Do the high-level education on the technology side, but make the end user sell it," he says.

In the end, says Bart Perkins, managing partner at Leverage Partners Inc. in Louisville, Ky., and a *Computerworld* columnist, IT isn't a spectator sport, and the best participants are educated. "There are those who say, 'You fix it; call me when it's done,' and those guys end up being unhappy with the results," he says. "You have to be part of the team that's doing IT, because it's changing the business." ◆ 47867

Brandel is a Computerworld contributing writer in Grand Rapids, Mich. You can contact her at mary.brandel@comcast.net.

A Syllabus

Educating your CXO is "incredibly important," says **Mark Jeffery,** assistant professor at the Kellogg School of Management at Northwestern University. His MBA class, called "Enterprise Technology for General Managers," aims to give business executives enough technology smarts to "not shoot themselves in the foot," he says. "They really do need to have a clue."

HIS BASIC SYLLABUS FOR THE EDUCATED CXO:

What can happen if you don't manage technology well. The class hears stories like this: In 1999, Hershey Foods Corp. went live with an ERP/CRM/supply chain system the month before Halloween. The system failed, crippling sales and causing a 35% stock hit [QuickLink a4780].

The language of technology. "They're not going to be Java programmers, but they need to know what bandwidth is; not how a network works but enough to understand why you need one; and why the investment in infrastructure is so incredibly important to the competitiveness of the firm," says Jeffery.

Corporatewide systems like ERP and CRM: The class learns what they are, what they do and that they are "very, very complicated," he says.

Why CXOs need risk management skills. Since 72% of large projects are late, over budget or don't deliver anticipated value, Jeffery says, "If you're a sponsor of a project, you've got a 28% chance of success. That's why."

What can happen if you botch security. When The Bank of New York Co.'s data center and primary backup center were wiped out on 9/11, the bank's secondary backup center in New Jersey was overwhelmed. "It couldn't process transactions, and its stock took a beating," he says. "They need to learn the importance of redundancy."

Technology trends such as Web services, XML, data warehousing and analytic CRM. "They need to understand how those trends will impact management decisions," Jeffery says.

– Kathleen Melymuka

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It's Not Easy Being IT

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Keep It Real

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Stretch YOUR TALENT

Challenging your IT staff with growth-oriented assignments can be a win for everyone – if you do it right. By Steve Ulfelder

BELLE MELLOR

A "STRETCH assignment" is one that requires a worker to take a leap beyond his comfort zone and, in the process, pick up new skills. Long used in business as a career development tool, stretch assignments are gaining popularity among corporate IT managers.

The idea is to help promising staffers round out their résumés by, for example, exposing them to a hot technology or placing them oo a team of high-profile end users. In theory, both the organization and the employees win — the latter through enhanced career prospects, the former through the development of more capable workers.

In practice, though, stretch assignments are "fraught with peril," says Ron Jeffries, a veteran programmer and consultant based in Ann Arbor, Mich., who is also editor of XProgramming.com, an online resource for programmers. Jeffries adds that while the concept is sound, IT managers too often slap the label on impossible projects — only to blame the staffer when the assignment fails. "Telling a programmer, 'I bet you can't implement this compiler by Thursday,' is not a legitimate stretch goal," Jeffries says.

So what is? IT managers say stretch assignments, when handled properly, can be a valuable management tool. Their experience has taught them some valuable do's and don'ts.

The first key to a successful stretch assignment is to decide who can handle one. According to Murray Horwitz, CIO at Waukegan, Ill.-based Uline Shipping Supplies, likely candidates are "people who've done the same thing for a while and are getting bored."

Horwitz says Uline actively pursues stretch assignments for workers, with several notable successes. For example, the company's lead Web programmer began as a second-shift AS/400 operator. Managers marked him as a worker with talent and ambition, and he was challenged to learn HTML and Visual Basic.

A Gentle Push

For IT staffers, the payoff for a successful stretch is a richer résumé, which could lead to higher-paying jobs. While it might seem that any employee would leap at such an opportunity, some workers need prodding, and some are simply not able or willing to tackle new, possibly uncomfortable assignments.

Horwitz recalls another stretch candidate who needed a gentle shove. "We had an extremely smart PC tech. He could fix any hardware problem," Horwitz says. But in order to better leverage the technician's time, managers wanted him to learn to write scripts for remote PC management tools such as PatchLink Corp.'s Update.

"He didn't want to do it," Horwitz says. The tech's comfort zooe was one-at-a-time PC fixes, and he balked at the stretch assignment. Horwitz persuaded him by pointing out the logical advantage of updating dozens of PCs at once. Implication: Uline needed more productivity in that area. "I told him he should do it for his career," Horwitz says. The employee saw the light and successfully learned the necessary script-writing skills.

Making It Work

Once you've chosen a likely stretch candidate, you need a legitimate stretch assignment — not, as is ofteo the case, an impossible task with an optimistic label. "If I were coaching a [programmer or developer], I would try to sense a gap in their skill set — something they'd benefit from learning," Jeffries says. "Then I'd try to challenge them with a project that would sound interesting to them and be difficult but doable."

Stretchers should be provided tools and support to increase their chances of success. Otherwise, you're not helping them stretch, but rather practicing sink-or-swim management, an age-old but inglorious tradition in IT.

That support sometimes comes from peers. An IT manager who works in a division of General Electric Co. says that when he was offered a stretch assignment to spearhead the drive to comply with the Sarbanes-Oxley Act, he leaned on more than two dozen peers from other GE divisions. "We had all these other 'SOX' managers with more experience, and contacting them was encouraged," says the manager, who requested anonymity. One vehicle for this peer support was an internal portal called Support Central, where "you can have a community about anything," he adds.

Stretchers should also be assigned a mentor, says Diane Morello, an analyst at Gartner Inc. "The mentor should be outside the persoo's normal reporting structure," Morello says, because the mentor may need to discuss the stretcher's weaknesses — such as a lack of interpersonal skills — in a way that would be difficult for a direct manager to do.

Failure Is an Option

The GE manager says that in his division, every IT employee is expected to stretch; indeed, the company has long been known as a pioneer and leading practitioner of the stretch. "They call it a stretch goal," the manager says, "but you're expected to complete them." He says his stretch projects, while difficult, have beeo a vital way to learn new skills, make contacts outside his immediate group and boost his career prospects.

Nevertheless, some believe that GE's stretch-or-stagnate approacb is a mistake. They argue that IT workers must onderstand that failing in a stretch project is not a career-breaker. "We've had failures," says Uline's Horwitz. When that happens, he says, "you've got to assess whether be failed because he's oot capable, or because he didn't want to extend beyond his comfort zone." In Horwitz's experience, the latter is usually the reason, and it's important to let the worker know he's still a valued contributor.

That way, he retains elasticity — and may someday stretch again. 47797

SAFE

Thinking about putting an IT worker on the rack? The following characteristics indicate that a worker may be ready to thrive if challenged:

- Eager to learn new skills
- Masters tasks quickly but then gets bored
- Has potential for promotion but lacks a few key skills, like business knowledge or ability to present to top execs
- Is obviously intelligent but underachieves in a low level [illegible]

Ulfelder is a Computerworld contributing writer in Southboro, Mass. Contact him at sulfelder@charter.net.

DAVID CLARK

Are You Annoying?

Irritating behaviors not only annoy your co-workers, but they can also compromise your effectiveness and even derail your career. By Alan S. Horowitz

DO YOU TELL IT insider jokes that users don't understand? Do you sprinkle technical jargon through discussions with business people? Do you find that you've usually got the right answer to any problem and you let everyone know it? If so, you may be something you didn't think you were: annoying.

Everyone's annoying some of the time, says Kimberly Alyn, a corporate trainer and co-author of *Annoying People and Why You're One of Them* (Llumina Press, 2003). But annoying behavior can have serious consequences in IT, where it can compromise your effectiveness, wreak havoc with projects and even derail your career.

Annoying behaviors are tricky because what annoys one person may sail by another. "You can say the same thing the same way to two people, and one person will say, 'Damn, that's annoying,' and the other person will not think anything of it," says Dan Bent, CIO at Benefit Systems Inc. in Indianapolis, an administrative services provider to health care plans.

But annoying behavior in IT sends ripples through the whole business. Gary Langer, associate vice president for academic technology at Chicago's Roosevelt University, explains that when IT support people are annoying, "people lose confidence, and they just give up. They stop asking questions."

Bent concurs. "You're always communicating with other people, and if you're annoying them, it reduces the likelihood your message will get across," he says.

Projects may also suffer. Jackie Palmer, a senior product manager at CRM software maker E.piphany Inc. in San Mateo, Calif., tells of participating at a meeting for a large insurance company that involved implementing process change. "The only way to do it is get [users] to buy in themselves," says Palmer. But a consultant at the meeting began to dictate what would happen. "The users became very combative," she recalls. It took several weeks of meetings to resolve the issues, and the project fell behind schedule.

If you think that you can't be annoying because you often work alone, think again. You still deal with people for support, advice and information, as well as to get a promotion, notes Gini Graham Scott, author of *A Survival Guide for Working With Humans* (Amacom, 2004).

For the worst offenders, the consequences of being annoying are potentially dire.

"Say someone comes to you and asks you a question today, and they find you annoying," says Bent. "Maybe the next time, they'll ask someone else. Soon people stop coming to you and asking you things, and you end up without a job."

The IT Niche

IT has its own annoying quirks. Langer says some IT people label users as neophytes and then blame them for any difficulties. "The user insists their e-mail doesn't work, and the IT person says, 'My e-mail works perfectly,' and assumes the user is the problem. Users really find this annoying," he says.

Some IT people are so sure they know what the problem is that they don't even listen to the user, says Katherine Spencer Lee, executive director at IT staffing firm Robert Half Technology in Menlo Park, Calif.

IT people expect users to always know what they want, and they can get exasperated when they don't. "Business people have a right to change their minds, because the business changes," says Ellen Gottesdiener, principal consultant at EBG Consulting in Carmel, Ind.

And IT folks often require the "right" decision, says Gerry McCartney, CIO at the University of Pennsylvania's Wharton School in Philadelphia. "[They] have difficulty between shades of gray," he says. "Sometimes there are a lot of 'rightish' answers," and insisting that there's just one can be annoying.

The Cure

To be less annoying, take care with how you communicate technical concepts to nontechnical people, says Lee. "It's not only how good your code is or how well you can fix a computer, but how well you communicate," she says. "That's a skill set IT people have to have."

Try to understand the type of person you're dealing with, says Steve Smith, a technical business consultant in Seattle for storage maker EMC Corp. "If I'm dealing with a [nonintuitive] person, I need to put things in concrete language. This person doesn't want abstractions."

Try to understand the other person's frame of reference, says Bent. And don't make assumptions, adds Lee. Listen to what people have to say.

Ask for help. For example, if you have a tendency to blurt things out and interrupt people, tell your listeners they'd be helping you by pointing out every time you do that, recommends Naomi Karten at Karten Associates, a customer satisfaction consultant and seminar leader in Randolph, Mass.

Use peer reviews to help curb annoying habits, says Greg Walton, CIO at health care provider Carilion Health System in Roanoke, Va. "If [IT workers] are annoying customers, they're probably annoying their peers," he says. The peer reviews let everyone know who is being annoying and how.

Finally, realize that it's occasionally OK to be annoying. "If you move your institution's agenda forward and you have to irk someone to do so, it's a good thing," says McCartney. Just don't do it without a good reason. ● 47890

Horowitz is a freelance writer in Salt Lake City. Contact him at alan@ahorowitz.com.

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8:45am to 9:15am	**Consolidation and the Data Center: Boosting Business Performance and Application Availability** Matt Eastwood, Research Director, Global Enterprise Server Solutions, IDC
9:15am to 9:45am	**Perspectives from the Chicago Mercantile Exchange** Steve Goldman, Director, Network Architecture, Chicago Mercantile Exchange
9:45am to 10:15am	Refreshment and Networking Break
10:15am to 10:45am	**User Case Study** Alejandro Lopez, System Architect, University of California Davis Medical Center
10:45am to 11:15am	**Customer Challenges and Solutions: Real-Life Scenarios Connecting Data Centers Over Distance** Steve Adolph, CTO, Enterprise Solutions Group, CIENA
11:15am to noon	**Panel: Overcoming Management Barriers — Making the Case for Consolidation** Panel Moderator: Maryfran Johnson, Editor in Chief, Computerworld Panelists: Joe Puglisi, CIO, EMCOR; Stephen Monn, CIO, TAC Worldwide; Frank Enfanto, Vice President, Operations Delivery & Information Security, Blue Cross Blue Shield of Massachusetts; Alejandro Lopez, System Architect, University of California Davis Medical Center
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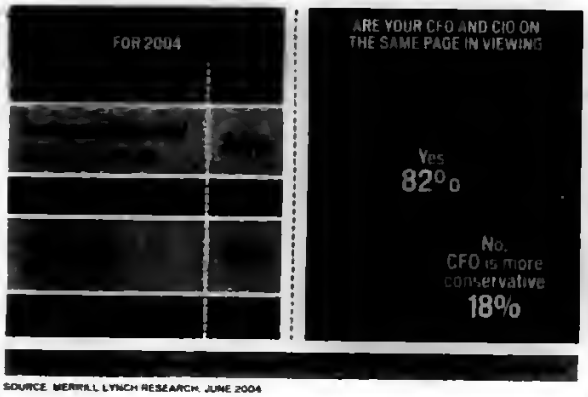


SOURCE: MERRILL LYNCH RESEARCH, JUNE 2004

Big Bonuses for IS Directors

Over the past two years, salary increases of 3% have been the norm for IS directors, who plan, direct and control day-to-day information systems functions. This year, however, the average bonus is expected to be 11% of base salary. That's $10,600.

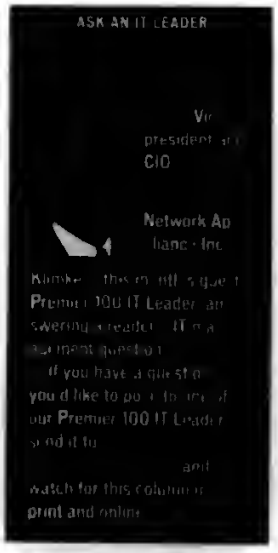
IS Director Salaries

2001	2002	2004
$95,250	$92,510	$99,100

Less than 10 years	11-20 years	More than 20 years
$75,600	$104,000	$95,700

Mainframe	OS/400	AIX/Unix	Windows	Nonmainframe Linux
$107,800	$97,700	$106,500	$88,600	$100,800

BASE: 1,130 IT sites ■ SOURCE: ENTERPRISE SYSTEMS, SEATTLE, WWW.ESJ.COM



I'm a new IT manager within a department of a local government agency. I have walked into an IT infrastructure disaster! How do I navigate the situation and the politics to put together a new and effective IT infrastructure? Your letter was light on details, but I will assume that your position affords you the opportunity to be a change agent.

First and foremost, a complete, thorough, unbiased assessment is needed. Because many of your co-workers/staff were probably involved in creating the "mess" you describe, it is difficult for you to rely on their evaluation. There are several outside firms that can conduct these assessments. The cost may be higher than you might like, but the assessment becomes the rationale for changes you will propose.

Second, I suggest that you boil down the findings to a few key problems. Show the assessment and short list to senior business leaders in your organization. In addition to gaining potentially good input, this process helps establish you as a knowledgeable, can-do person. Building credibility with these folks will be very beneficial when you undertake the changes you envision.

Third, engage your staff. Give considerable thought to potential emotional responses and push-back. Then, offer a draft agenda of the concerns you have identified based on the objective, unbiased assessment. Balance this with your vision of what the environment will look like down the road. The discussion should be less about why the IT infrastructure is lacking and more about what it could become. Establishing a shared vision with your team is critical because the buy-in of the team is necessary to drive the changes you propose. I can't stress this point enough.

Finally, after getting your agenda through your staff and management, it's time to start the hard work. Going from a conceptual plan to a real action plan is the next step. Be judicious in your selection of projects. The projects should be of very short duration, with clear benefits to both the IT group and the business. Keep the team focused.

Here are a few suggestions:

■ **You can't have enough communication;** talk to anyone who will listen. Make these meetings valuable: Be a take-charge person with an agenda, and stress the benefits that will result from changes. Be realistic about risks, but balance risks with benefits.

■ **At the very least, adopt the rudiments of solid project management.** Have a budget, a project plan and a governance structure along with a list of expected downstream benefits.

■ **Provide regular feedback to the implementation team.** Keep the shared vision alive. Build the team's personal objectives around the initiatives on which you've elected to focus.

■ **Resist the urge to take on more than you can handle.** I'm sure there are a hundred things to fix. But having too broad an agenda dilutes resources; results take too long to notice and the outcome can be disastrous. Less is more.

Companies and agencies hire strong IT managers because of the problems the organizations are facing. Your value in the marketplace now and in the future will be largely based on your ability to get a critical project agenda in place, to motivate your team and to execute flawlessly. It takes personal leadership, yet you can't go it alone. 48046

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QUICK HITS

IT Security Strategies

How companies protect against internal wireless communication exposures

Scan the network to identify rogue wireless networks	[illegible]
Issue employee guidelines for use of Wi-Fi	[illegible]
Institute security policies related to organizational wireless use	[illegible]

Security strategies currently deployed:

Defined security standards	[illegible]
Privacy statements	[illegible]
Intrusion-detection/prevention systems	[illegible]
Access management	[illegible]
Provisioning systems	[illegible]
Directories	[illegible]

Security strategies to be deployed over the next 18 months:

Defined security standards	[illegible]
Intrusion-detection/prevention systems	[illegible]
Access management	[illegible]
Provisioning systems	[illegible]
Directories	[illegible]

SUE YOUNG

Turning Around The Hard Case

HOW DO YOU HANDLE chronic mistake-makers — especially those who treat their mistakes as something to be laughed at and overlooked? How can you get such people to recognize that there is a problem they need to correct?

As a self-motivated manager, you may wonder at subordinates who don't hold themselves to the same standards you do or even notice that there's a problem with their work. How can a competent worker consistently underperform, as if he just doesn't care? When nothing you've tried makes a difference, what do you do?

I once worked with a development team whose only quality assurance guy didn't make test plans and hardly tested at all. The manager called him into his office several times and even threatened to fire him. Nothing changed the QA guy's behavior.

Then one of the coders pulled the QA guy aside and said, "Hey, I need your help. My code is due tomorrow, and if it breaks on the users one more time, I'm in deep. I can't test it myself. Will you stay late tonight and help me out?"

The QA guy stayed late and tested. Thoroughly. The coder thanked him profusely and told him how much everybody else on the team needed him, too.

There were no more problems with that QA guy. He tested his backlog, then proactively asked his teammates if they needed anything from him.

This experience taught me that, as a manager, you can take the following steps to help a subordinate realize that a chronic problem needs his attention and develop an eagerness to fix it. (Although if the problem involves routinely missing deadlines, you may have unrealistic schedules.)

Ask for his help. Sincerely say, "I need your help." By doing that, you're showing the worker that he's important and valued, which may surprise him. People like to be needed, valued and respected, and when they feel they are, it's amazing how quickly they can change and rise to the occasion.

Explain why there's a need to change. You may think it's obvious why what has happened in the past can't continue. But the person may think that what has happened is acceptable because it has happened so many times.

Even if you think he understands, show the employee how important his role is and why his work is vital to the project. Again, you may think it's obvious. But this person may not see things as you do.

Ask for his recommendations. Remind the worker that this is his area of expertise and that he probably knows more about it than you do, and then ask, "What do you recommend we do in the future to improve this?" Your attitude is key. Show that you sincerely value the person's input.

If the subordinate doesn't answer, or if he evades the question, go back to the first two steps. If this person feels that no one listens to him, it may take a while to convince him you're serious.

Create a strategy. When he gives you suggestions, keep prompting him until he comes up with a viable strategy.

Verify that there wasn't any miscommunication. Say, "To make sure we're both on the same page and we don't forget anything, let's write this down." Write it down together — right away, not later. Agree on the steps that will be taken, when they will be taken and by whom. Now you both have a plan that he has created and agreed to. There's no question what's expected.

Reinforce how needed, important and trusted the person is. Even if you don't need reinforcement and don't understand why anyone else would, it never hurts to applaud specific efforts that you want to see more of.

Show him you rely on him. Tell the worker, "I'm counting on you to make this change by the end of the quarter. Otherwise, I'm in hot water because no one else can do it." If you want subordinates you can rely on, show them you trust and rely on them.

And remember: Hold a high image of employees in your mind that you expect them to live up to — just as you do for yourself. 47628

STRETCH YOUR TALENT

Giving promising staffers assignments that challenge them to move beyond their comfort zones is another way to get people to realize their full potential. See page 33.

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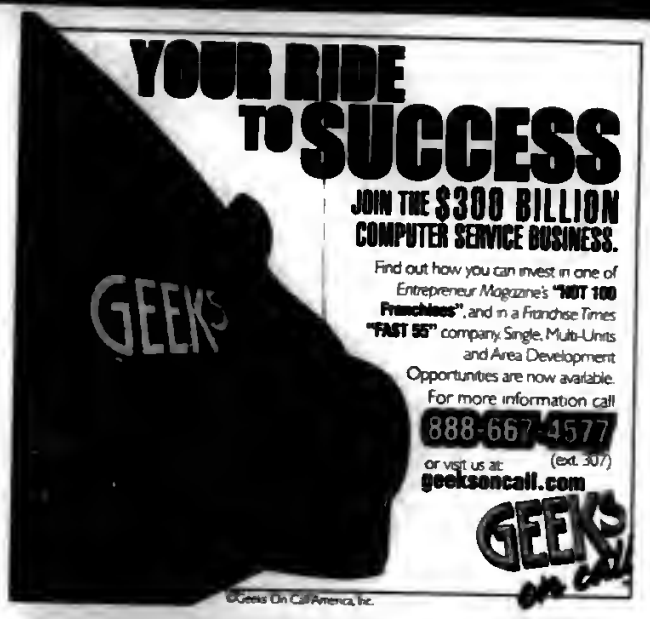

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Front End/Middle Tier Sr Developer (3) - Proficient UI dsgn & middle tier sought by Software consulting institute to help enhance real time equity trading systm. Req solid middle tier (business logic) w/remoting & reflection technique exp. Must have solid front end (presentation layer) w/reflection technique exp. Proficiency in servers fix middleware, trade process, order execution, order flows, connections, stock trading equities n/working, TCL/IP & d/base servers, knowl & extensive exp of ASP/ASP.Net, VB/VB.Net, Visual Interdev, E-R Diagrams & SQL/PLSQL w/dynamic & server side controls, Crystal Reports, OOA/D & UML. Req Bach & 3 yrs. exp. Resume to Prabhnita Kaur, Comp Technology, 15 East North St, P.O. Box 899, Dover, DE 19903-0899

Discoverer Systems Administrator sought by NYC-based IT Company to install, configure, upgrade and maintain Oracle Discoverer, reconcile data between legacy and Oracle GL, and create and administer Discoverer reports for financial and custom modules. Should have BS in Comp Engg or equivalent with 1 yr exp using SQL, PL/SQL, Discoverer9i, Oracle 8i/9i, OFSA, Report Writer, Erwin, SQL Loader, and Developer 2000. Respond to: HR Dept. JRI America, 277 Park Avenue, 6th Floor, New York, NY 10172

Sr Software Engineer wanted to manage the dvlpmt., scalability, efficient operation & growth of prof dvlpmt tech projects at the local & regional levels. Must have Bach deg. in Comp. Sci., or related field & 3 yrs. of exper managing software design & dvlpmt. projects for web-based apps., incl exper designing & implementing Soft-Grid apps. w/ Java & J2EE. Please send resume to Craig V. Brenner, Pres., EduCatalyst, Inc., 16R North St., Hingham, MA 02043.

Software Engineers, & Programmer Analyst needed. MS/BS or equiv. and/or rel work exp req. Duties include: Research, design, develop & implement various complex software, groupware, & systems applications. Work w/ various technologies like Vignette, ADO.NET, Java, SQL Server, ASP, Rational Rose UML, Oracle, Visual Basic etc. Send resume, references, & salary req. to Cyber Resource Group, 477 Congress St., 5th Flr, Portland, ME 04101

A fast growing software firm is looking for Programmer Analysts. Should have bachelor's or Master's degree in computer science/related field with 2 years. Oracle DBA on Unix and Windows Platforms, software development in any of the four skills using C, C++, VxWORKS, RTOS, Unix, .Net, VB, ASP, Visual Studio, ADO, PeopleSoft, SAP, COBOL, DB2, CICS, Java, J2EE, EJB, Struts, XML, JBuilder, testing tools, Oracle, Documentum, Siebel, SQL, JD Edwards and SAS. We accept foreign education equivalent of the degree or the degree equivalent in education and experience. Send resume and covering letter to: Entelli Consulting LLC, 890 E. Higgins Road, Suite#148, Schaumburg, IL 60173s

Software Engineer to assist in creating system-level specifications and designs. Participate in system specifications, design reviews and peer reviews. Design, protype code, integrate and test software components. Prepare system documentation and status reports and support system testing. Must have the ability to perform client/server architecture, TCP/IP network communication, SQL database management systems, C/C++, Microsoft Visual C++ (MFC), Java and Sun Solaris UNIX/Linux. Must hold JAVA 2 Platform Programmer Certification. A Bachelor's degree in Computer Science, related field or its equivalent. Applicant must also successfully complete the company skills test. Hours are 7:30 a.m. to 4:30 p.m. 40 hours per week. Salary is $47,500 per year. Send resumes to Kristine Hansen, 9110 W Dodge Road, Omaha, NE 68114

Systems Administrator (with Bachelors degree and 5 years experience) - Columbus, OH. Job entails and requires experience in configuration and maintenance of systems using Veritas Backup, Windows Active Directory, Sun Solaris and Citrix Metaframe and Exchange Server. Develop Systems using P3 Expedition and Kana. Relocation within USA Possible. Attractive compensation package. Send resume to Priya Venkat, Technology Software Inc., 1515 Bethel Rd., Suite 304, Columbus, OH 43220

Programmer Analyst for auto windshield replacement co. in Oakland, CA. Send resume to Mehrdad Hakimian @ Glass Emporium of Marin dba Glass Pro, 1276 West Grand Ave., Oakland, CA 94607.

Database Administrator (2 positions) various locations - Coordinate changes to computer databases, test, and implement the database applying knowledge of database management systems. May plan, coordinate and implement security measures to safeguard computer databases. Requires a Bachelor in Computer Science, Engineering or Mathematics and 1-yr exp in the job offered. Must have 1-yr exp using EA Server, ASE 12.5 and Power Designer 9. 5 day, 40 hr/wk, $75,000/yr. Please mail resumes to Workforce Development Programs, PO Box 46547, Denver CO 80202 & refer to order number CO5084487

Programmer-Analyst needed to dsgn, dvlp & test telecom interoffice provisioning narrow/broad band appl s/ware using Enterprise Architect, CEM, Tuxedo, FC/IF, C/C++, Java, J2EE, XML, XSLT, XHTML, SVG, CGI, PERL, SED, AWK, LEX, YAAC, Socket Prgmg, GDB, DBX, XDB, Purify, Valgrind, ADEX, RDBMS, Erwin, Unix, Linux, Win NT/XP on HPUX & Sun Solaris. Send resume to: Global Consultants, Attn: Hireme, 5800 Grand Oaks Cir #100, Tampa, FL 33637

SBI is looking for the following positions for its offices in Houston, TX, San Francisco, CA, Warren, NJ, Salt Lake City, UT and Portland, OR: Art Director, Web Designer, Programmer Analyst, Technical Architect, Technical Consultants, Business Strategist, Systems Analyst, Software Engineer, Software Developer, SAP Consultant, Business Systems Analyst, resumes by email or fax only to HR, SBI, 2825 East Cottonwood Parkway, Suite 480, Salt Lake City, UT 84121
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SYSTEMS ANALYST

Analyzes user requirements, procedures and problems to design of building automation systems. BS in CS or Engg or math-related and 2 yrs. exp. in job offered. Must be able to travel. Incl. in the 2 yrs. Must have 2 yrs. exp with various computer skill sets such as: HVAC DDC Controls, AutoCAD Visio, Load duct and piping software, computer networking, protocols, TCP/IP, LAN/WAN, XML, software testing, PLC controls, C/C++, VBScript, JavaScript, SQL, Oracle 8i, Crystal Reports 9.X, Visio, Unix Shell Scripts under Unix and MS Windows reqd. 40 Hrs./wk. 9 to 5, Monday thru Friday; no overtime. Apply by resume only to Murali Suddala, President, Capricorn Systems, Inc. 3569 Habersham-at-Northlake, Building K, Tucker, GA 30084

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IT PROFESSIONALS

Consultant

(Glen Mills, Pennsylvania and other locations through the U.S.) Responsible for providing professional consulting services to business clients in the design and development of front and back-ends of websites, as well as infrastructure architecture across various platforms. Engage in environment design, configuration and release/change management. Responsible for systems analysis, design methods, requirements documentation and production implementation for n-Tier applications utilizing Siebel, BEA Weblogic, ATG Dynamo, Oracle and Lightweight Directory Access Protocol (LDAP). Involved in streamlining the process of application integration using middleware applications including SeeBeyond. Responsible for desktop compliance assessment and technical vendor relationship management in the implementation of Siebel.

The wage offered is $74,752 per year. The work schedule is Monday-Friday 9:00 am to 5:00 pm. The minimum requirements are as follows: Bachelor's degree in Computer Science, Math, Engineering (any type), Information Systems or Business Administration + 2 years of experience in the job offered or 2 years of experience as a Consultant, Infrastructure Consultant, Sub Team Lead or Systems Analyst. Related experience must include at least six months of experience in Siebel, BEA Weblogic, ATG Dynamo, SeeBeyond, Oracle and Lightweight Directory Access Protocol (LDAP).

Please send your resume, referencing Job Order Number **WEB437629** to the PA CareerLink, FLC Unit, 235 West Chelten Avenue, Philadelphia, PA 19144. EOE

IT PROFESSIONALS

Senior Consultant

(Glen Mills, Pennsylvania and other locations through the U.S.) Responsible for the design and development of custom modular software applications for transaction processing including multi-tiered web-based applications. Responsible for the analysis, gathering and documentation of complex functional requirements, as well as conceptualization and development of design prototypes and alternatives. Design and develop each tier in multi-tiered systems including the presentation tier, the business logic tier and the database tier. Engage in the design and development of software applications and electronic interfaces using Active Server Pages (ASP), Microsoft BizTalk Server, Visual Basic, COM+ and related web technologies. Engage in database design and development in SQL Server including data model design, stored procedures and functions and relational data modeling using tools such as ERWin. Engage in design and development of Electronic Data Interchanges to external systems and trading partners using Microsoft BizTalk Server and XML based technologies. Involved in entire software system development lifecycle including design, code development, and testing, system testing, user acceptance testing, configuration management and phased implementation. Design and develop complex financial reports utilizing report development software such as Crystal Reports.

The wage offered is $79,000 per year. The work schedule is Monday-Friday, 9:00 am to 5:00 pm. The minimum requirements are as follows: Master's degree in Computer Science, Math, Engineering (any type), Information Systems or Business Administration + 2 years of experience in the job offered or 2 years of experience as a Senior Consultant, Consultant or Graduate Research Assistant. Related experience must include at least six months of experience in ASP, COM+, Visual Basic, Microsoft BizTalk Server, XML, SQL Server, ERWin and Crystal Reports.

Please send your resume, referencing Job Order Number **WEB437609** to the PA CareerLink, FLC Unit, 235 West Chelten Avenue, Philadelphia, PA 19144. EOE

IT PROFESSIONALS

Manager

(Glen Mills, Pennsylvania and other locations through the U.S.) Provide advisory services to improve performance of major financial services institutions primarily in the securities and banking segments. Develop and implement strategies to improve performance of international financial services companies through operational effectiveness, revenue growth and organizational alignment initiatives. Analyze market trends and benchmarking performance against competitors to understand areas for improvement. Develop comprehensive business cases to support initial hypotheses. Identify opportunities for organizational design and effectiveness. Utilize financial services knowledge to analyze processes, identify disconnects and re-engineer processes for improvement. Develop and implement cost rationalization strategies including organizational re-location and resource re-allocation. Identify client opportunities and formulate detailed proposals for clients across a broad spectrum of topics. Develop materials for and conduct interviews with senior level executives. Facilitate working sessions with senior level executives and provide insight to improve company performance. Manage project teams comprised of both clients and consultants including mentoring, evaluation, feedback. Manage project financials (reconcile actuals, burn rates etc.)

The wage offered is $115,000 per year. The work schedule is Monday-Friday, 9:00 am to 5:00 pm. The minimum requirements are as follows: Bachelor's degree or equivalent in Business Ad, Economics, Finance + 5 years of experience in the job offered or 5 years of experience as a Consultant, Senior Consultant, Manager or Investment Banking Analyst. Related experience must include financial modeling, knowledge of financial services business and operating models, competitive analysis and a detailed understanding of business revenue and cost drivers. Experience must also include at least 2 years working for a management consulting firm in strategy with detailed knowledge of banking and capital markets with strong client management and facilitation skills at the senior management level.

Please send your resume, referencing Job Order Number **WEB437380** to the PA Careerlink, FLC Unit, 235 W. Chelten Avenue, Philadelphia, PA 19144. EOE

PROGRAMMER/ANALYST, SNR (Westchester) to design & optimize databases, using MS SQL Server; plan, develop, test & document programs, using programming techniques, computer systems & internet tech (HTML, ASP, JavaScript, ColdFusion, XML, CSS & Perl); develop appl's in Windows & UNIX, using VB, FoxPro, C++ & MS Access, & develop video conferencing appl for multi-platform systems. 35 hrs/wk. Must have bach's in Comp Sci, MIS or Elec Engrg & 2 yrs in job or 2 yrs Analyst/Programmer exp. Contact: QuickSilver, Attn: HR Dept., 7 Odell Plaza, Yonkers, NY 10701 & quote #10442.

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SYSTEMS DEVELOPER. Plan & develop computer technology to enable meeting the organization's needs. Design systems (hardware & software); add software applications to harness computer's power. Work specifically w/Visual FoxPro System. Use structured analysis, data modeling, information engineering, mathematical model building, sampling, & cost accounting to plan the system. Need 2 yrs exp as Computer Systems Developer, with at least 6 mo exp w/Visual FoxPro (6.0 or higher). Need BS in Computer Science or closely related field. Need proof of legal authority to work in U.S. Contact: Outdoor Accents, Inc. Attn: R. Garmo, 26300 Telegraph, Southfield, MI 48034.

Senior Engineer I - Under close sprvisn & assistance, rsrch, dsgn & dvlp comptr s/ware sys in conjunction w/ h/ware prodct dvlpmnt; Analyz s/ware reqmnts to detrmn feasibility of dsgn w/in time & cost constraints. Cnslt w/ h/ware enggrs & other engg staff to eval interface betw h/ware & s/ware & opratnl & perfrmnc reqmts of sys. Asst in formulating & dsgning s/ware sys using scntfc anlys & mathmtcl models to predict & msr outcome & consequences of dsgn; Dvlp prodct specs. Code embedded cntrl s/ware using C lang. Code in C & C++ lang for dvlpng graphical user interface s/ware. Asst h/ware enggrs intgrating cmpnents in dsgns. Code cmncatns protocols (Modbus/DNP 3.0/other protocols). Dvlp & troubleshoot tstng prcdrs. Wrk w engg tst technicians. Write & debug s/ware using real-time prgmg & emulators. Dvlp s/ware sys tstng prcdrs, prgmg, & docmtn. Cnslt w/ cstmr concrnng sys mntnc. Asst in sys instln. Tech cstmr asstnce. Wrk as team mbr. Req'd: BS or equiv - Electrncs & Cmmcatns Engg & 1 yr exp in job offrd &/or in occupns invlvng dvlpng comncatn protocols, & using C &/or C++. $54,855+/yr. 40 hr wrk wk. Job Order #FL2532852. Send resume: Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869

SMS Administrator: Dvlp & maintain Systems Mgmt Server (SMS) for n/work. Install, configure & support SMS, which is connected to vital & com systms within n/work. Monitor systm performance, perform updates & provide tech'l assistance to users. Administer ePO orchestrator, a tool for centralized, enterprise-class systm security mgmt. Utilize SMS tool to remotely manage & support 400 systms within n/work worldwide. Req: Bach or foreign equiv in CS or related field. 4 yrs exp in job offd or as Systm or Network Admin. CCNA & MCSE certifications. 4 yrs exp in following, which may have been obtained concurrently: MS SQL, MS 2000 Server & MS SMS & network admin incl DHCP & VLAN networking technologies. Resume (NO calls): S. Blosser, Cendian Corp., 6 Concourse Pkwy., Ste 2800, Atlanta, GA 30328

Systems Analyst needed to analyze, dsgn, dvlp & implmt next generation e-commerce, distributed computing & 3-tier architecture systms using LiveLink Builder, SDK, LiveLink (Workflows, Forms, LAPI), SQL, Shell Scripts in Win2000/NT & Unix OS. Resume to Global Consultants, Attn. Hireme, 171 Elden St. #212, Herndon, VA 20170

NETWORK SYSTEM ADMINISTRATOR wanted by software/hardware co. in Houston, TX. Must have B.S. in Computer Science & exp. Respond by resume only to Mr. Majid Mashal, B/B-#10, Computers & More, Inc., 10717 Gulf Frwy, Houston, TX 77034

Comforce Information Technologies, Inc. is seeking advanced degreed IT professionals in each of the following areas: Software Engineer and Database Administrator. Send resume to attn: David Newton, 15305 Dallas Parkway, Ste. LB 19, Addison, TX 75001.

CG Maersk USA, Inc. providing cutting edge IT services to clients all over the world is seeking a professional with bachelors in CSci/EE w/2 yrs exp in network infrastructure/storage system, SAN, WEB tools to work at various US locations. Apply to: CG Maersk USA, 386 N. Wabasha, #1500, St. Paul MN 55102.

Architect/Lead wanted by electronic license management services co. Requires B.S. in Comp. Sci. plus 8 yrs. exp. Reply by resume to Open Channel Solutions, Attn: HR, 1400 Providence Highway, Norwood, MA 02062.

Do you want to be part of the team building and managing a state-of-the-art network? A New York State government agency is seeking a project manager at its IT office in Manhattan. The position requires experience in managing large and complicated projects, strong background in networking (data and voice communications), excellent organizational and communication skills. Knowledge of web site development is a plus. Starting Salary $75,804 with $1,200 location pay. Great benefits including 4 weeks annual leave and 13 days sick leave. Send resume to: statemresume@aol.com

Software Engineer IV (Temple Terrace, FL) Under limited direction responsible for planning, development, and implementation of applications and systems in support of general business operations. Lead a team of software developers to provide conceptual and technical solutions to complex business or technical problems. Provide technical expertise in operating systems for the telecommunications industry. Independently responsible for complex projects and operate under deadlines. Utilize full life cycle development methodology including design, development, testing, implementation, maintenance and support of automatic telecommunication circuit design/provisioning systems for the telecommunications industry on client-server architecture using C/C++, Java, HTML, Javascript, Unix and Windows NT. Provide senior management with system design recommendations to alternatives in conformance with corporate architectural guidelines and coordinating the implementation of such designs within projected time frames. Recommend techniques and methodologies to systems personnel that will result in improved productivity and product quality. Provide guidance to and assist in training less experienced software engineers. Requires Bachelors degree in Computer Science or Engineering, plus either 3 yrs exp in the job offered or 3 yrs exp in telecom software engineering to include 1 year using full life cycle development methodology in the automatic telecommunication circuit design/provisioning systems on client-server architecture using C/C++, Java, UNIX and Windows NT. Salary $84,200/yr. Mon-Fri, 8AM-5PM, 40 hrs/wk. Send resume to Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869, refer to J.O. # FL-2533076

NETWORK SYSTEMS ANALYST under supervision of Project Mgr. implement & support IT systems including Win 2000 Exchange, IIS, ISA, SQL, DNS Servers & Workstations. Design & maintain Local, Wide and Wireless networks using TCP/IP & VPN, company's websites, Internet firewalls, running ISA, & MS Access & SQL Server databases. Provide regular IT training. Draft & implement IT business policies/procedures, forms & templates. Provide technical support for wired & wireless routers, switches. Remote Control of workstations & automated system updates. Maintain networking hardware including Dell Servers, Dell/HP/CISCO routers & switches. Require: Bachelor's degree (or equivalent) in Computer Science /Applications, or a closely related field. Each 3 yrs of progressively responsible work exp in the field will be considered equivalent to 1 yr of college education. Must have a demonstrated ability to perform the stated duties gained through academic coursework/previous work exp. Competitive salary offered. Send resume to Bradley Watkins, The Fredrick Watkins Company, Inc., 2548 Industrial Blvd, Orlando, FL 32804, Attn Job AE

Computer Programmer Must have BS in Comp Sci or Electrical Eng, and proficiency Via Basic, SQL, AutoCAD. Duties: design & devlp FM automation tools and reports, support calls, network admin, process data. Also work with AutoLisp, ColdFusion, HTML, JAVA, C++, MS OFFICE, Win desk top & Server. Resume to Integrated Data Solutions, Inc., 3000 Cabot Blvd West, Suite 3001, Langhorne, PA 19047

Consultant Coral Gables FL and at various client sites throughout the U.S. Consult lead and interact with clients regarding Business Intelligence Consulting and Visual Warehouse products. Plan and execute a Business Intelligence plan and work with client and IBM teams to apply technology in implementing the plan. Conduct "spot consulting" at various client sites to arrive at specific client requirements and to ensure needs are met. With no on-site supervision lead medium to large complex client engagements and manage fact-finding analysis, development of hypothesis/conclusion, production of final reports and delivery of presentation. Provide guidance on methodology and code verification for Programming Developers. Utilize C, DB2, SQL and Assembly on Unix (AIX). Master's Degree or equivalent in Computer Science, MIS, Engineering, or Industrial Engineering and one (1) year of experience in the job offered or one (1) year of experience in the related occupations of Software Engineer Applications or Technical Support Specialist. Employer will accept a Bachelor's degree plus five (5) years of progressively more responsible work experience in lieu of a Master's degree. $85,001 per year, 40 hours per week, 9:00 am-6:00 pm. Please send resumes to Job Order number FL-2532364, Workforce Program Support, P.O. Box 10869, Tallahassee, FL 32302-0869

NETWORK ENGINEER to design, configure, test & troubleshoot LAN/WAN using Cisco, Juniper, Nortel Routers, Switches & Hubs connected via T1/T3, Frame Relay, ATM, POS & Ethernet links. Maintain network elements using Cisco Works, Remedy, Place & Visionael TDS. Build redundant MAN using HSRP/VRRP, VLAN, Trunking & Port Aggregation features. Optimize traffic patterns using routing protocols (BGP, OSPF, EIGRP, MPLS with RSVP & RIP) & traffic filtering (ACL's, distribution lists, filter lists & AS path prepending lists). Implement security measures using network firewalls, DMZ, Inner & Perimeter Router Design, AAA, IPSEC, NAT, PAT, TCP intercepts, CBAC & Intrusion Detection. Monitor systems & bandwidth performance using Net cool, NetScout probes, Ethereal & Smartbits data generators. Require B.S. degree in Computer Science, an Engineering discipline or a closely related field with 2 yrs of exp in the job offered. A M.S. degree with a demonstrated ability to perform the stated duties gained through academic coursework/previous work exp will be accepted in lieu of the B.S. degree & 2 yrs of exp. Extensive travel on assignment to various client sites within the U.S. is required. Competitive salary offered. Send resume to: Roz L. Alford, Principal, ASAP Staffing LLC, 3885 Holcomb Bridge Rd., Norcross, GA 30092. Attn: Job RS

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PROGRAMMER/ANALYST to analyze, design, develop and implement complex client/server web-based application software using object oriented programming, J2EE, JSP, EJB, Servlet, JMS, Java, XML, WebSphere, WSAD, WebLogic, Crystal Report, Crystal Enterprise, Oracle and MS SQL Server on Windows and UNIX platforms under ISO 9001 and SEI CMM quality procedures. Require B.S. degree in Computer Science, an Engineering discipline, a closely related field with 2 yrs. of exp in the job offered. Extensive travel on assignments to various client sites within the U.S. is required. Competitive salary offered. Apply by resume to Sophie Modkanji, Software Paradigms International, Inc., 3901 Roswell Rd, Ste 134, Marietta GA 30062. Attn: Job SG

Computer System Analyst

Person will be resp. for Programming computers using C, Pro*C, UNIX Network Programming (TCP/IP, UDP-SNMP), Multi-Threading, Shell Programming, JAVA-Swing, JDBC, Socket Programming, Applets, JSP, EJB, HTML, Visual C++, VRML, Adobe Photoshop. Use Oracle 7.x/8, Oracle PL/SQL, Sybase 12.0, MS-ACCESS 7.0 databases. Also Program on UNIX, Dec Alpha 8200, HP-9000, Sun Solaris 2.x (SPARC), IBM-AIX, Windows-NT, 95,98, ME, 2000, Linux-Redhat 8.2, Redhat 7.0 and DOS (6.22) operating Systems. Rate $57,450 per year. Hours 40/WK (8am-5pm). Must have Bachelor's degree in Computer Science +2 years as Computer or IT Programmer Experience. Mail resume to Case # 200300047, Labor Exchange Office, 19 Stanford St., 1st floor, Boston, MA 02114

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E-voting

ing an issue at the convention. But if it's not, Rep. Johnson certainly plans to make it one," said John B. Townsend, a spokesman for the congresswoman.

However, speaking on condition of anonymity, an IT industry source who met last week with members of Sen. John Kerry's staff said the Kerry campaign is considering a move to pull back from the position taken by the Democratic National Committee and Howard Dean's Democracy for America organization. Dean and the DNC have endorsed the voter-verifiable paper ballot requirement for e-voting systems — something that only the state of Nevada has planned for November. According to the official, the Kerry campaign is considering support for verification of the final vote tally through some form of encryption.

For many Democrats, however, the issue boils down to a Republican-controlled Congress that has refused to force voting-system vendors to open their software to inspection and verification.

"The Republicans have an interest in not doing anything about electronic voting security," said Townsend.

But some analysts, along with liberal organizations, said that although security of the systems and the integrity of the software used are real concerns, the rhetoric surrounding the debate could actually hurt voter turnout. And that could backfire on the Democrats.

THUMBS DOWN

E-voting is rejected in Ohio

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"We're worried about voters being scared off," said Tanya Clay, director of public policy at Washington-based People for the American Way. "It's one thing to push for security in all voting machines, but it's another thing to scare people into thinking it's useless for them to go and vote. We can't allow this issue to hijack the election."

Damage Control

But the e-voting security debate may have already damaged the trust of some Americans who will vote electronically this November. One reason for that is the appearance of a possible conflict of interest stemming in part from a comment made publicly last August by Diebold Election Systems CEO Walden O'Dell that he was "committed" to delivering Ohio's electoral votes to President George W. Bush.

In addition, Federal Election Commission records reviewed by *Computerworld* show that between 1997 and 2003, O'Dell contributed $10,465 of his own money to Republican campaigns.

David Bear, a spokesman for Diebold, said O'Dell immediately expressed regret for having made the comment and has curtailed all personal political activity. Bear also noted that Diebold has since introduced a company policy banning employees from participating in the political process beyond voting.

In another case, Aldo Tesi, CEO of Omaha-based Election Systems & Software Inc., contributed $1,200 to Republican candidates in 1999 through the Commercial Federal Bank political action committee.

Meghan McCormick, a spokeswoman for ES&S, said

> **"We can't allow [the e-voting] issue to hijack the election.**
>
> **TANYA CLAY,** DIRECTOR OF PUBLIC POLICY, PEOPLE FOR THE AMERICAN WAY

the PAC in question makes contributions to candidates of both parties and noted that Tesi made the contribution as a member of the board of Commercial Federal Bank and not on behalf of ES&S.

"We understand and appreciate the serious responsibility we have in the democratic process," McCormick said. "ES&S company policy prohibits associates from making political contributions for any candidate or political party for or on behalf of the company."

Still, such activity fuels the debate about the integrity and security of e-voting systems, Clay insisted. "You don't have to be a conspiracy theorist to connect the dots on this issue," she said.

Clay also cited the lengthy process involved in Congress passing the Help America Vote Act of 2002, which provided $3.86 billion to replace punch card and lever-based systems with new touch-screen systems.

"It took two years to pass HAVA, despite the fiasco of 2000," said Clay, referring to voting system malfunctions in the last presidential election.

"There were a lot of people who didn't want that bill because they had nothing to gain from it," she said. "Why would you want to change an election process that has put you in office? And that's what's happening with electronic voting machines."

Avi Rubin, the Johns Hopkins University computer science professor at the center of the debate over e-voting security, last week told members of a House subcommittee that it would be "irresponsible" to move forward with the November election without addressing the legitimate security problems identified to date. Townsend said Johnson shares that view.

"Voting is not like other applications," Rubin said in an interview. "There is no reason why anyone should trust a vendor." QuickLink 48368

Platform Focuses on Outsourcing, Access to Broadband

The government should focus on protecting U.S. workers' jobs and creating universal access to broadband services, according to the Democratic Party's 2004 platform.

The platform, approved by the party's platform committee on July 10, doesn't specifically refer to offshore outsourcing, but it does appear to focus on the position taken by some Republicans that U.S. companies have the right to move jobs overseas.

"We believe Americans are the smartest, toughest competitors in the world," the platform states. "Our products and ideas can compete and win anywhere, as long as we're given a fair chance. And our companies can keep and create jobs in America without sacrificing competitiveness."

While John Kerry hasn't been involved in many technology issues during his Senate career, Democrats included a handful of technology-related planks in the 41-page platform. Some issues, including the party's advocacy of universally available broadband and a permanent research and development tax credit, mirror positions held by many Republicans.

The document accuses the Bush administration of defending policies that "weaken America's competitive position and destroy American jobs."

The Republican National Committee didn't immediately respond to a request for comment on the Democratic platform.

Democrats are concerned about offshore outsourcing, and the two parties have some major differences on the issue, said Rep. Rick Boucher (D-Va.), who's frequently involved in technology-related matters brought before Congress.

U.S. tax law should give U.S. companies incentives to keep jobs at home, Boucher said, echoing a Kerry campaign theme. Democrats have decried a tax loophole through which corporations can take advantage of tax deferrals for money made overseas, as long as the money stays overseas.

Boucher suggested that Congress should even consider penalties for companies moving jobs overseas. "I think we should have tax incentives the reverse of what we have today," he noted.

Technology groups such as the Washington-based Business Software Alliance have opposed most legislation designed to curb outsourcing, saying U.S. companies need that option in order to stay competitive. U.S. companies need to take advantage of ideas from foreign workers and need foreign workers to localize and sell products in overseas markets, said Robert Crescenti, the BSA's vice president for public policy.

Crescenti praised most of the Democratic platform, saying that a couple of the IT issues it addresses, including universal broadband and a permanent R&D tax credit, "are right squarely within the technology industry's agenda."

Crescenti said the BSA opposes tax penalties in response to outsourcing, saying that such a policy could slow job growth in the U.S. "If we start to fiddle with penalizing companies for moving jobs overseas, we could easily find ourselves in uncomfortable straits," he said.

The 2004 Democratic platform (available at QuickLink a4820) also calls for the U.S. government to enforce trade laws on countries such as China, which the U.S. has accused of discriminatory semiconductor trade practices.

– Grant Gross, IDG News Service

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BPA ABM

SCO Gets KO'd

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And DaimlerChrysler's lawyers didn't just beat SCO. They kicked SCO up one side of the courtroom and down the other. They stomped all over SCO's famous law firm. They demolished SCO's overblown claims and threats.

And they didn't depend on IBM or Novell or Red Hat to do their legal brawling for them. They did it for themselves.

That wasn't in the script. It certainly wasn't what SCO expected when it sued DaimlerChrysler and AutoZone in March. These weren't big vendors with Linux businesses to lose. They were user companies. They were supposed to be lawsuit-shy and risk-averse. They were supposed to be on the defensive.

And defensive is pretty much how AutoZone has played it. A week before the DaimlerChrysler decision, AutoZone's lawyers convinced a judge in Nevada to put the lawsuit against it on hold until after certain key issues are settled in SCO's suit against IBM.

No shame in that — it was good lawyering. SCO had accused AutoZone of breaking copyright law by using Linux. IBM has spent the past year proving that Linux doesn't violate any SCO copyrights. Letting IBM do the heavy lifting just made sense. But that delay leaves AutoZone open to the possibility that SCO will get an injunction to stop it from using Linux while the case is on hold. It's a long shot for SCO — but it's still a risk for AutoZone.

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There was nothing defensive in the way they ripped apart SCO's arguments. There was no request for a stay or delay, no looking for help from any vendor, no angling for a split decision.

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They were right.

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Even Red Hat, whose lawsuit against SCO in Delaware has been on hold, is now working hard to convince the judge that SCO's strategy is to damage Red Hat's Linux business by delaying resolution of the case.

And now, corporate users — who were supposed to be easily intimidated, who were supposed to pay up instead of fighting when they got threatening letters from SCO — are punching back. Hard. And they're winning. Big.

For SCO, that means trouble. For DaimlerChrysler and every other big corporate IT user, it means a lot more than that.

It just may mean the end of the software business as we know it. Because once corporate software customers figure out how much leverage they have when they flex their muscles, this industry will never be the same. 48324

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

Almost, but Not Quite

User complains to support pilot fish that he can't get his laptop's e-mail to work, and while he can surf the Web, he can't get to any of the company's private Web sites. Once fish gets to the user's desk, it doesn't take long to figure out why. "He wasn't using our internal, cabled LAN," fish says. "He had his unsecure home wireless card installed – and he was using a neighboring company's unsecured wireless LAN."

SHARK TANK

Nothing Like Security

New security edict comes down: Cables must be installed on all desktop PCs to prevent theft. "But there was no money for mounting brackets," says IT pilot fish. "So when the tech came to my desk, he just took one support off the above-the-desk shelf, wrapped the cable around the shelf and slid the bracket back onto the wall." No tools needed to install it – or to walk off with the PC. "But now," fish says, "I had a useless, ugly cable stretching from PC to shelf and back."

Well, It Seems to Keep 'Em Happy

This company runs Windows applications using Citrix servers, and all users have thin clients on their desks, so there's no local data to worry about. At least IT isn't worrying about it. "I had a call from a user who had just swapped offices with someone else, complaining that we didn't move their computers so they won't be able to read their personal files," reports IT pilot fish. "Rather than disconnecting two machines, swapping them around and reconnecting, I took the top front of the case off each and swapped those when the users were on a break. Problem solved."

The Right Tool For the Job

Pilot fish spots a backless ergonomic chair – the kind where you're kneeling all day – in the server room and gets the boss's OK to use it. "Three days later, crusty old server admin returns from his vacation and storms around the office looking for his chair," fish says. But you don't sit on it, fish points out. Admin's reply? "He says the chair is at the right height to hold non-rack-mounted servers when pulled out from under work tables for maintenance or upgrades."

Just Desserts

This user brings his dead PC in for service, and tech pilot fish diagnoses the problem as a motherboard failure. "We set about replacing the motherboard," says fish. "When I removed the board, there was a fork wedged under it – complete with cherry pie remnants on the tines. The customer's response? 'Oh, I wondered where that had gone.' "

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FRANK HAYES ▪ FRANKLY SPEAKING

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